

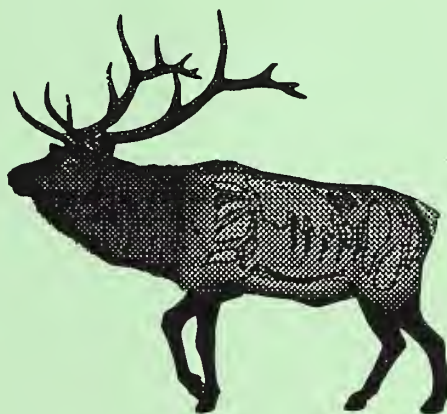
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# **DRAFT**

# **ENVIRONMENTAL**

# **ASSESSMENT**

**SPOKLIE - TOBIE CREEK GAME FARM**



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**Montana Fish, Wildlife & Parks**  
**Region 1**  
**490 North Meridian**  
**Kalispell, Montana 59901**

APR 14 2000



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# **SUMMARY**

## **ENVIRONMENTAL ASSESSMENT PROPOSED SPOKLIE - TOBIE CREEK GAME FARM**

### **INTRODUCTION**

Montana Fish, Wildlife & Parks (FWP) is required to perform an environmental analysis in accordance with the Montana Environmental Policy Act (MEPA) for each proposal for projects, programs, legislation, and other major actions of state government significantly affecting the quality of the human environment (Administrative Rules of Montana [ARM] 12.2.430). FWP uses environmental assessments (EAs) in the game farm licensing process to identify and evaluate environmental impacts of a proposed game farm. EAs also determine whether the impacts would be significant and whether, as a consequence, FWP would perform a more detailed environmental impact statement (EIS).

When preparing an EA, FWP reviews environmental impacts of the Proposed Action, impacts of the No Action Alternative, and impacts of other alternative actions which include recommended and/or mandatory measures to mitigate the project's impacts. A mitigated EA includes alternatives with enforceable requirements (stipulations) which reduce impacts of the Proposed Action. The EA may also recommend a preferred alternative for the FWP decision maker.

This EA is prepared for a proposed game farm (Spoklie Tobie Creek) near Kalispell and Whitefish, Montana. Based upon its review of the Spoklie Tobie Creek game farm application, FWP has prepared a mitigated EA.

### **OBJECTIVES**

This EA has been prepared to serve the following purposes in accordance with FWP MEPA rules (ARM 12.2.430):

- ensure that FWP uses natural and social sciences in planning and decision making;
- to be used in conjunction with other agency planning and decision-making procedures to make a determination regarding the Proposed Action;
- assist in the evaluation of reasonable alternatives and the development of conditions, stipulations, and modifications to the Proposed Action;
- determine the need to prepare an EIS through an initial evaluation and determination of the significance of impacts associated with the Proposed Action;
- ensure fullest appropriate opportunity for public review and comment on the Proposed Action; and
- examine and document the effects of the Proposed Action on the quality of the human environment.



## **PUBLIC PARTICIPATION**

Public involvement in the EA process includes steps to identify and address public concerns. The Draft EA will be available for public review and comment from December 22, 1998 until 5 pm January 19, 1999 from the Region 1 FWP office. A public scoping meeting was held at the Kalispell FWP office on November 11, 1998 to solicit public comments on the issues that should be addressed in the EA. In addition, a public meeting is planned in Whitefish on January 7, 1999 at which time written and/or verbal comments will be accepted regarding this Draft EA. Comments regarding this EA should be submitted to FWP or at the public meeting location specified below.

Mr. Brian Sommers  
Fish, Wildlife & Parks, Region 1  
490 N. Meridian  
Kalispell, Montana 59901  
Phone (406) 752-5501

Public Meeting  
Thursday, Jan. 7, 1999  
7:00 PM, Grouse Mtn Lodge  
Whitefish, Montana

## **PROPOSED ACTION AND ALTERNATIVES**

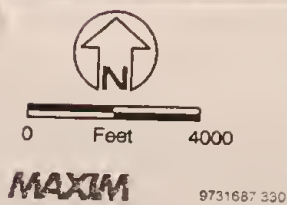
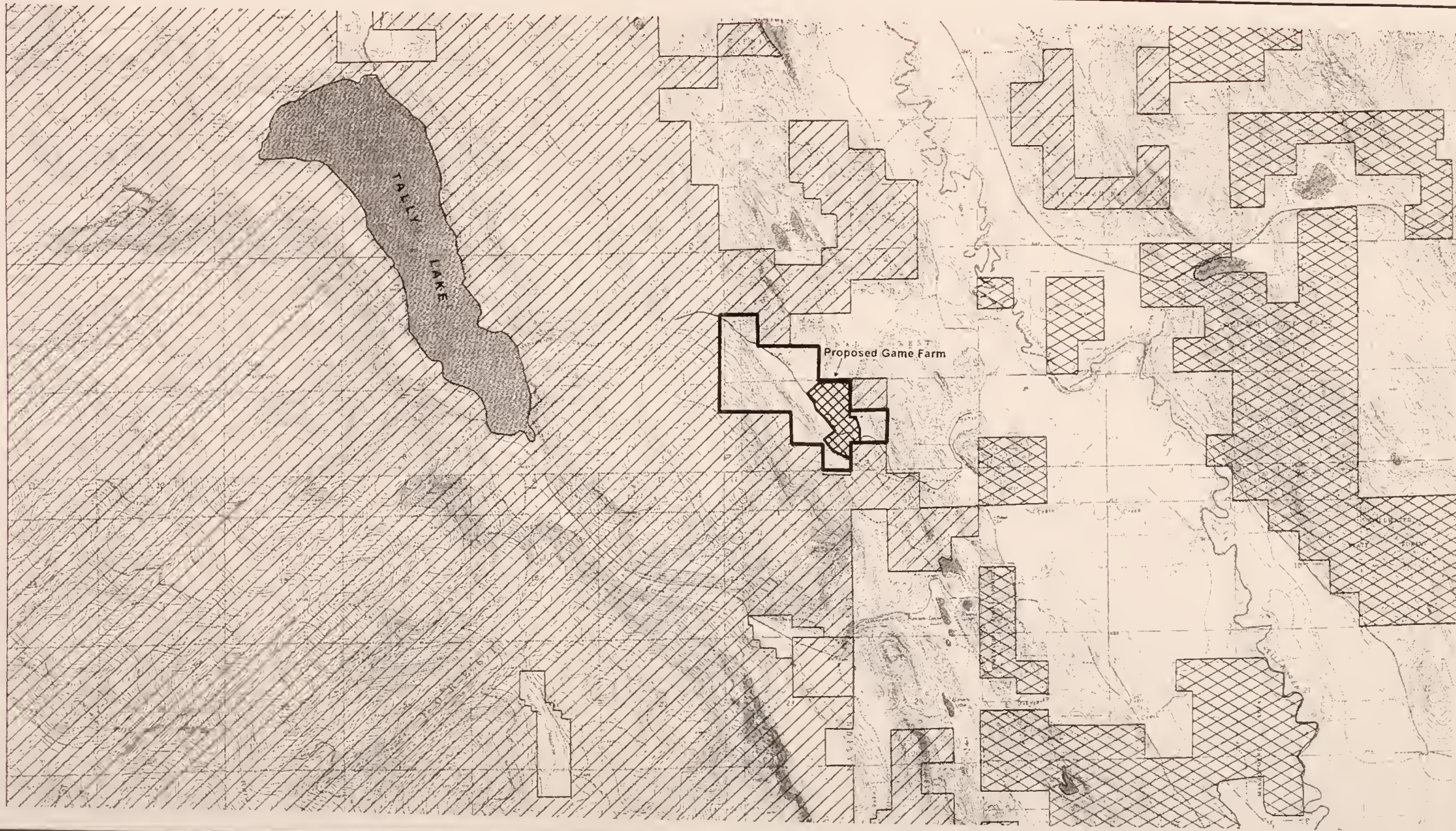
### **PROPOSED ACTION**




FWP received an initial application dated February 9, 1998 from Grant Spoklie to construct an elk game farm in Flathead County, Montana. An amended application dated September 14, 1998 was received from Grant Spoklie that included a reduction in the original proposed size of the game farm enclosure (original = 180 acres; amended = 81 acres). No expansion of the 81-acre game farm is being considered as part of this EA. For purposes of this EA, the proposed game farm is referred to as the "Tobie Creek game farm" because of its location along this creek. The proposed Tobie Creek game farm (Figure 1) would be located approximately 6 miles west of Whitefish and 13 miles northwest of Kalispell, Montana. A caretaker would live on-site during the period each year that elk are present in the game farm enclosure. The property is leased from Stoltze Land & Lumber Company.

The Proposed Action consists of placing up to 30 elk in the game farm during the period of early May through January of each year for the primary purpose of culling surplus, mature bull elk profitably by controlled shooting using clients who desire trophy elk. While up to 30 elk may be in the game farm enclosure at any one time, the average number would be approximately 14-16 elk. Elk would be removed earlier than January if travel to the area is restricted by snow depth. The application includes the options of having elk cows and calves, and for additional uses including breeding stock, meat production, and antler production. The shooting operation is also referred to as "put and take" fee shooting. Most elk released into the proposed game farm would come from existing animals owned by Grant and Robert Spoklie. Any elk remaining at the end of each season would be transported to a licensed game farm, most likely owned by Grant or Robert Spoklie.

As mentioned above, game farm elk would not be left in the game farm during most of the winter season (approximately January through April). Perimeter fence gates would remain locked at all times except when game farm animals are moved into or out of the enclosure, at which time the gates would be monitored to prevent ingress/egress. The fence has been constructed and wild animals would be removed from the game farm enclosure prior to issuance of the license by FWP and DoL.





-  Stoltze Land and Lumber Company
-  State of Montana
-  Flathead National Forest

Note: Ownership Data Derived From  
 Montana Public Lands  
 U.S. Bureau of Land Management  
 1:100,000 Scale Quadrangles.  
 Topographic Base Derived From  
 USGS 1:24,000 Scale Maps.

Site Map  
 Proposed Game Farm EA  
 Spoklie - Tobie Creek Game Farm  
 Flathead County, Montana  
 FIGURE 1





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The applicant would sell and dispose of domestic elk in accordance with Montana game farm and disease control requirements stipulated in Montana statute and administrative rules. Fence construction has been completed and will undergo a final inspection by FWP prior to issuance of the license to assure that the fence is in compliance with requirements of FWP under ARM 12.6.1503A, and proposed changes to these rules (i.e., New Rules XII through XVII that would repeal Rules 12.6.1501 through 12.6.1519). Fencing consists of 8-foot high, tightlock mesh game fence, 2½-inch or larger diameter steel pipe posts spaced not more than 24 feet apart. Wooden posts are used in some of the moist areas. Posts are set approximately 3 feet into the soil. Corner posts are braced and cemented in the ground. Several reaches of fence extend an additional 2 feet in height (10 feet total height) where the fence crosses steeper slopes to mitigate potential problems with ingress or egress. Some areas of the fenceline also have additional wire at the base of the fence to minimize gaps where uneven surface conditions occur.

A total of five 8-foot high steel gates have been constructed around the perimeter fence (Figure 2). Two of these gates are for purposes of easement by Stoltze Land & Lumber Company and for additional emergency fire control access. A holding facility would be constructed in the east-central portion of the game farm (Figure 2) for purposes of handling and testing the elk; this would be constructed according to standards of the Montana Department of Livestock (DoL). A quarantine facility would not be constructed at this game farm; if needed, elk would be moved to an approved quarantine facility at the existing Spoklie game farm south of Kalispell.

## **ALTERNATIVES**

One alternative (No Action Alternative) is evaluated in this EA. Under the No Action Alternative, FWP would not issue a license for the Spoklie Tobie Creek game farm as proposed. Therefore, no game farm animals would be placed in the existing fenced enclosure. Implementation of the No Action Alternative would not preclude other activities allowed under local, state and federal laws to take place at the proposed game farm site.

## **PURPOSE AND NEED OF THE PROPOSED ACTION**

The Tobie Creek game farm would be a private commercial enterprise that would provide for the culling of surplus, mature bull elk profitably by controlled shooting using clients who desire an elk trophy. Additional purposes of the game farm may include breeding stock, antler production, and meat production.

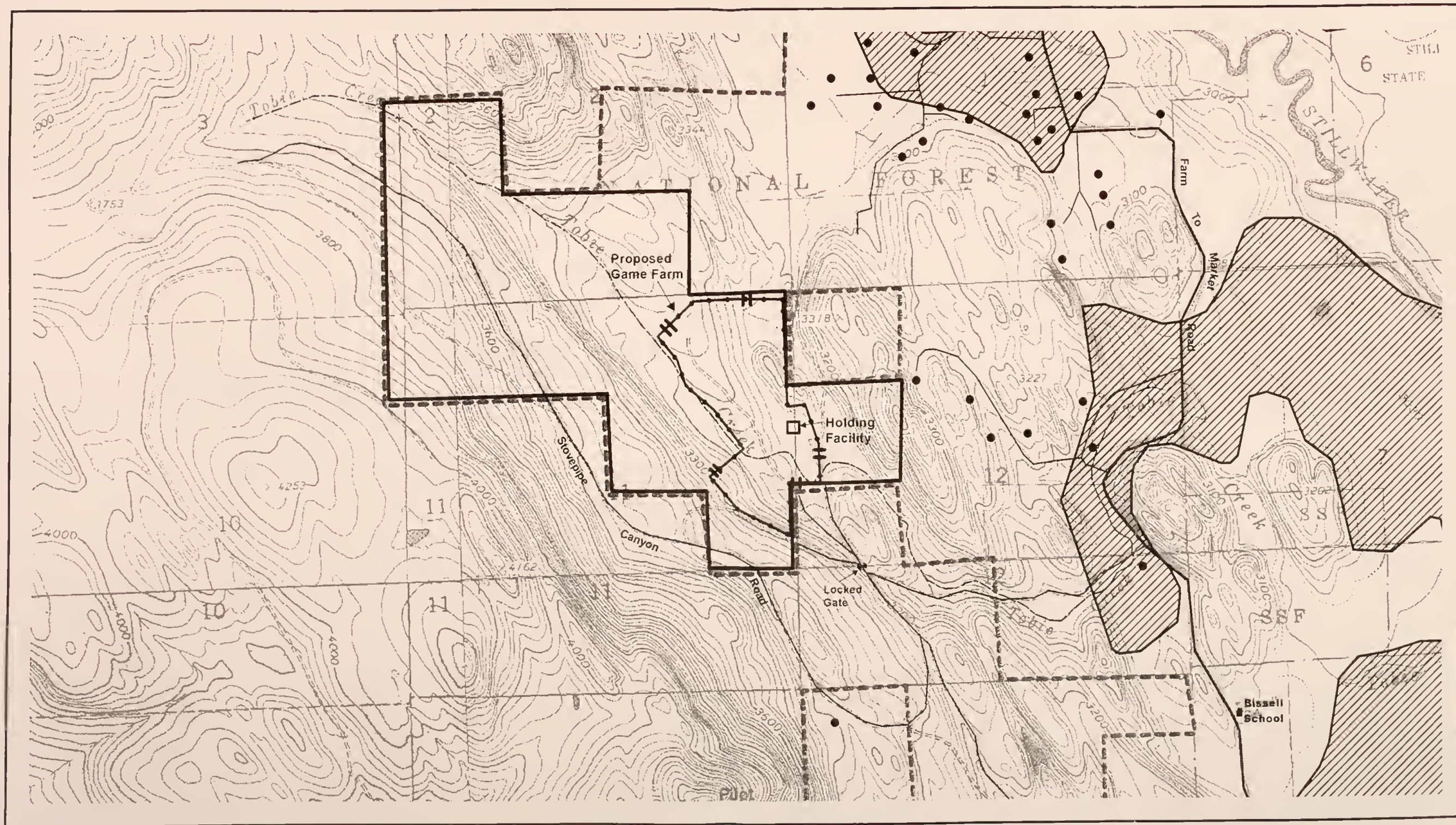
## **ROLE OF FWP AND DEPARTMENT OF LIVESTOCK**


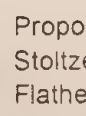
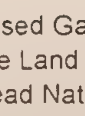
FWP is the lead agency in preparing this EA for the proposed project. This document is written in accordance with the Montana Environmental Quality Council (EQC) MEPA Handbook and FWP statutory requirements for preparing an EA under Title 75, Chapter 1, Part 2 Montana Code Annotated (MCA) and FWP rules under ARM 12.2.428 et seq.


FWP shares regulatory responsibilities for new and expanding game farms with the Montana Department of Livestock (DoL). The DoL is responsible for regulating the health, transportation and identification of game farm animals. During the application process, all quarantine area plans and specifications are submitted to the DoL for approval and inspection of the proposed quarantine facility. No game farm licenses are issued without DoL approval.







 Proposed Game Farm  
 Stoltze Land and Lumber  
 Flathead National Forest

• Residence ( approximate )  
 — Gate  
 Crop/Pasture

Note: Evergreen Forest Not Shown.  
The Distribution Covers The Map Area  
Other Than The Crop/Pasture Extent

Note: Land Use Data Derived From  
Montana Public Lands  
U.S. Bureau of Land Management  
1:250,000 Scale Maps.  
Topographic Base Derived From  
USGS 1:24,000 Scale Maps.

Land Use / Land Cover  
 Proposed Game Farm EA  
 Spoklie - Tobie Creek Game Farm  
 Flathead County, Montana  
 FIGURE 2





## **AFFECTED ENVIRONMENT**

The proposed Spoklie Tobie Creek game farm is located on 81 acres approximately 6 miles west of Whitefish, in Flathead County. This section summarizes primary environmental resources in the project area.

### **LAND RESOURCES**

The proposed Spoklie game farm is located on leased property about 6 miles west of Whitefish, Montana in forested, hilly terrain adjacent to the Flathead National Forest. The Stillwater River and its flat-lying valley is located about 2 miles to the east. Elevation ranges from 3,100 to 3,500 feet above mean sea level. Timber has been cut from portions of the leased property (owned by Stoltze Land & Lumber Co.) in the past, most recently this past summer as part of tree clearing operations for the game farm fence. Tobie Creek drains the entire proposed game farm area, flowing south and eastward to the Stillwater River.

Two landtype associations are present in the proposed game farm area: Andeptic Cryoboralfs, which are present generally along the west side of Tobie Creek, and Typic Eutroboralfs, which are present east of Tobie Creek. Soils present on both landtype associations are primarily volcanic ash influenced silt loams formed in glacial tills derived from argillites and limestones. Soils in wetland areas along the Tobie Creek drainage bottom may possess different characteristics due to saturated conditions. Both landtype soils are generally susceptible to compaction which, if increased markedly, can cause an increase in runoff and erosion. Lime accumulations in both landtype soils tend to limit root penetration so trees are susceptible to windthrow.

### **WATER RESOURCES**

The Spoklie game farm area is located in the eastern mountainous foothills of the Salish Mountains. The Stillwater River and Valley are located approximately 2 miles east of the game farm site. Tally Lake is located approximately 2.5 miles west of the game farm site. Tobie Creek is a perennial stream that drains the entire game farm area, flowing southeastward to the Stillwater River. The Tobie Creek channel, which extends through the west-central and southern portions of the game farm area, flows in a relatively small, stable meandering channel that has a low gradient. Several water rights for Tobie Creek downgradient of the game farm are listed with the Montana Department of Natural Resources and Conservation (DNRC).

No springs or ponds were observed within the game farm enclosure; however, wet, boggy wetland areas occur along Tobie Creek, especially in the southern third of the game farm site. Another wetland area is in the northeastern portion of the game farm where an ephemeral drainage extends northeastward to eventually join Tobie Creek. Water for the domestic elk would be supplied by Tobie Creek.

Groundwater in the vicinity of the proposed game farm site likely flows eastward from the mountains to the Stillwater River Valley bottom. Several water wells have been drilled within 1 mile of the proposed game farm site. The nearest wells are for domestic purposes approximately 0.5 to 1 mile east and northeast of the game farm site; these wells range in depth from about 100 to 300 feet. Depth to groundwater in the wells ranges from approximately 10 to 180 feet below ground surface.

### **VEGETATION RESOURCES**

The proposed game farm site has been selectively logged, and is classified as forested. Upland areas are dominated by Douglas-fir, larch, and grand fir. Understory species in logged areas are primarily shrubby, dominated by Oregon grape, kinnickinnick, and snowberry. Few grass and sedge species were present on upland timbered sites, and grass production is generally inconsequential in terms of total understory biomass.

Tobie Creek and other wetland areas have an overstory of spruce, and birch, and an understory that varies from sedge and grass, to shrubs such as red-osier dogwood, willow, thimbleberry, raspberry, and alder.

Based on a database search of the Montana Natural Heritage Program (MNHP) files, and a reconnaissance level survey of the tract, there do not appear to be any-federally listed plants within the proposed game farm. A population of yellow lady's-slipper was located on the proposed game farm. Yellow lady's-slipper is ranked sensitive by the U.S. Forest Service, but is not a federally-listed endangered species. Two Montana State listed Category 1 noxious weeds - spotted knapweed and Canada thistle - are present on the proposed game farm.

## **WILDLIFE RESOURCES**

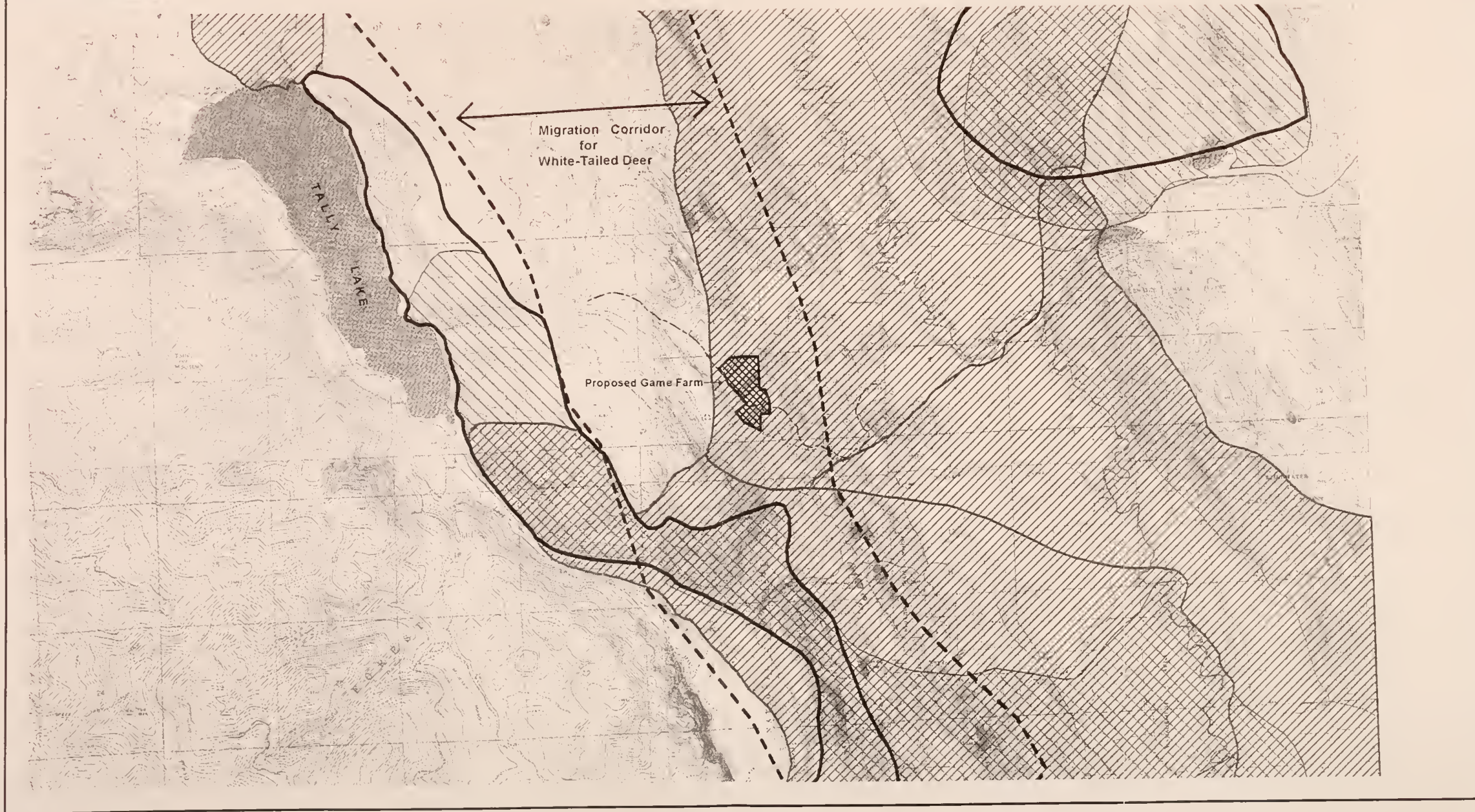
The entire proposed game farm site and surrounding Stoltze Land & Lumber Co. land were selectively logged during the early 1970s, and a 40-acre parcel within the game farm enclosure was selectively logged during the summer of 1998. The proposed game farm is already fenced to exclude big game and the site is grazed by several horses and mules. The general area is used by a variety of big game species including white-tailed deer, mule deer, elk, moose, black bear, and mountain lions. Big game distribution in the game farm area is shown on Figure 3.

The Tobie Creek area in the Salish Mountains supports a large population of white-tailed deer in two discrete herd units. The southern herd unit includes the Tobie Creek area and the proposed game farm. Some deer are year-long residents in this area, and the migratory corridor from winter range to summer range includes Tobie Creek (Figure 3). The yearlong range of the white-tailed herd unit is encompassed by Hunting District 102. The northern herd unit range encompasses Hunting District 101 and the winter range is located near Murphy and Dickie Lakes. The general area of the proposed game farm is used as both winter range and year-long range by white-tailed deer. During summer, this general area supports 10-15 white-tailed deer per square mile, and during mild to average winters, deer may concentrate in this area in densities of up to 60 deer per square mile.

A few moose use this area on a year-long basis and some additional moose move into the Tobie Creek drainage during winter. Some elk may also use the general area of the proposed game farm. However, elk numbers are not great, and the area does not represent significant elk winter range. Mule deer are occasionally sighted in this general area, but are not considered resident or migratory through this area.




This area represents good mountain lion habitat due the combination of an abundance of white-tailed deer, heavy coniferous cover, and rock outcrops. There is a resident mountain lion population and they would be expected to occur in the area on a year-long basis. This area also supports a sizable black bear population. Use of this area by bears will vary seasonally and between years. Bears are expected to reside in this area year-round, with density depending upon forage availability.





MAXIM

9731687 330

-  Mule Deer General and Winter Range
-  Elk General and Winter Range
-  White-Tailed Deer Winter Range

Note: Moose distribution is not shown, but covers the entire map area.

Note: Data Derived From  
Montana Fish, Wildlife and Parks  
1:100,000 and 1:250,000 Scale Maps.  
Topographic Base Derived From  
USGS 1:24,000 Scale Maps.

Big Game Distribution  
Proposed Game Farm EA  
Spoklie - Tobie Creek Game Farm  
Flathead County, Montana  
FIGURE 3





Bald eagles (a federally-listed threatened species) can potentially occur in this area. However, Tobie Creek is not a large enough stream to provide foraging habitat for bald eagles. Peregrine falcons (endangered) are potentially migratory through this area, but they are not known to nest in this area. The gray wolf and grizzly bear are two federally-listed (threatened) wildlife species with some potential to pass through the general area of the proposed game farm. Wolves have been sighted along the west side of Whitefish Lake.

## **LAND USE/COMMUNITY**

Most land immediately surrounding the game farm is owned by Stoltze Land & Lumber Company (Figure 2). The northeast and southeast sides of the game farm site are bordered by Flathead National Forest land. The Flathead National Forest extends north, south and west from the Stoltze land. Selective logging has historically been performed on these lands, and the public land is used for recreational purposes, primarily by local residents. Some agriculture occurs in the Stillwater River Valley approximately 2 miles east of the game farm.

Residences occur primarily 0.5 to 1 mile northeast and east of the game farm site; one residence exists 0.5 mile to the south (Figure 2). Three homes are located less than 0.5 mile from the site on the east side of a ridge that separates the game farm from these residences. The Bissell School is a small grade school located approximately 1 mile southeast of the game farm site.

Since lodging for clients that would use services of the game farm is not available on site, clients most likely would seek lodging in Whitefish or Kalispell. At least one seasonal employee would be hired to be an on-site caretaker for the proposed game farm. Local residents in the vicinity of the game farm appreciate their space and outdoor recreational activities that the natural environment and its resources provide, such as hunting, fishing, hiking, skiing, snowmobiling, photographing, picnicking, wood gathering, and wildlife and landscape viewing.

## **RISK/HEALTH HAZARDS**

Domestic elk may carry or become infected with a contagious wildlife disease or parasite such as tuberculosis, and then coming in contact with wild deer, elk, or other wildlife. Other risks or hazards to the public may result from shooting operations that would occur at the game farm. Residences and a school are within average maximum ranges of high-powered big game rifles. Accessible public land (Flathead National Forest) is located near the game farm, primarily to the north, south and west (Figures 1 and 2). National Forest land (U.S. Forest Service, USFS) is located adjacent to the game farm site in two areas on the east side. The Stovepipe Canyon USFS Road extends along west side of the game farm at a lateral distance of from about 700 to 1,500 feet. The Farm to Market Road extends north-south at a distance of about 1 mile east of the game farm.

## **AESTHETICS/RECREATION**

The game farm site is located adjacent to and near Flathead National Forest lands (Figures 1 and 2). These public areas offer access to outdoor activities such as hiking, fishing, skiing, camping, picnicking, hunting, photographing, and wildlife viewing. General access to these areas is from private land or from USFS roads, primarily the Stovepipe Canyon Road.

## **ENVIRONMENTAL CONSEQUENCES**

Only primary resources that have potential adverse effects from the Proposed Action are summarized in this section. A detailed discussion of environmental consequences is contained in *Part II* of this EA.



## **LAND RESOURCES**

Environmental impacts to land and soil resources associated with the Proposed Action of raising elk on the 81-acre site are directly related to the stocking rate. The relatively small portion of the enclosure area west of Tobie Creek contains moderately steep to steep slopes where soil will erode if an adequate vegetative cover is not maintained. Saturated soil in the wetland areas along Tobie Creek present a risk of compaction and disruption if heavy use by the elk occurs. It is expected that 30 elk on a seasonal basis would not result in significant impacts to overall soil stability. In addition, Tobie Creek extends through a relatively low gradient pathway of about 3 miles prior to entering the Stillwater River.

## **WATER RESOURCES**

Increased runoff and erosion could occur in some areas of the game farm pasture if the stocking rate exceeds the carrying capacity of the pasture and vegetative cover is diminished. The relatively large game farm area and proposed maximum stocking rate (30 elk on 81 acres) on a seasonal basis, however, should allow for the potential to maintain adequate vegetative cover. Direct ground disturbance to wetland areas by the elk may increase sedimentation to Tobie Creek due to soil erosion and a reduction in the filtration function of the wetlands along the creek. Undisturbed wetlands downgradient of the game farm site probably would remove some of the increased sediment load.

Domestic elk fecal matter and nutrient-enriched water may have a minor effect on the quality of groundwater and surface water in the vicinity of the game farm, primarily during periods of snowmelt and major precipitation events. The relatively high use of this area by white-tailed deer, however, suggests that some minor nutrient loading of water resources may have already occurred. Increased disturbance of wetland areas by the domestic elk would contribute to nutrient increases because of increased fecal matter in these wet areas, and a reduction in nutrient filtration/adsorption capacity.

## **VEGETATION RESOURCES**

The game farm/shooting preserve would graze up to 30 elk on 81 acres from May through January, depending on snow depth. Domestic elk would utilize forage available on the tract; no additional forage would be provided. Assessing useable forage on the tract is difficult. Elk prefer grass and forbs, utilizing shrubs primarily in the winter when grass and forbs are unavailable. Grass and sedge species populate small clearings that range in size from less than 1 acre to about 4 acres. Grass and sedge production ranges from less than 1000 pounds/acre to over 4,000 pounds/acre. The clearings with high forage production are also wet for much of the non-winter period, limiting some use of these grass and sedge species by elk.

Thirty elk would require approximately 105,300 pounds of forage for the 9-month period of use. It is estimated that the game farm enclosure produces less than half of that in useable grass and sedge forage. The balance of the forage would be derived from forbs, shrubs, and tree species. Several of the shrubs present are good browse species, and would be utilized by elk; however, impacts to vegetation are expected to be relatively minor from 30 elk over a seasonal period of up to 9 months. Weed populations in the game farm may increase in areas that have greater ground disturbance from the elk.

## **WILDLIFE RESOURCES**

The proposed game farm site is used by wintering white-tailed deer during average winters or during mild winters with below average snowfall. The proposed game farm site is also within an area used as a migratory corridor by white-tailed deer moving onto and off of the winter range. The enclosure of 81 acres would result in the loss of some wintering habitat for white-tailed deer. However, the loss of this area would not be significant during severe winters because deer become concentrated on the core area of critical habitat about 3 miles

south of the proposed game farm site. The proposed 81-acre game farm site would alter migratory movements of some deer slightly. Although the migratory corridor through this area is narrow, this game farm is small enough that migrating deer would be expected to navigate a route around the enclosure fence. The 81-acre enclosure is also within range of daily movements for white-tailed deer and is not expected to significantly alter daily movements of deer during snow free periods. During periods of snow cover, the enclosure may result in more stress on deer because they are not well adapted to deal with deep snow like elk and moose, and deer become more vulnerable to predation during periods of snow cover.

The proposed game farm would include Tobie Creek which is a small perennial stream. Tobie Creek within the proposed game farm enclosure is too small to support a significant fisheries, and the stocking density of elk (up to 2.7 acres per elk for 9 months) is not excessive, and would have minimal impact on aquatic resources within the enclosure and immediately downstream from the site.

Mountain lions and black bears are expected to pass through and/or reside in this area and may be attracted to the game farm due to the concentration of domestic elk, the presence of elk feed, and/or the presence of gut piles from the elk shooting activities. Lions and bears are capable of entering the enclosure and, although live capture and removal are possible, it is not without risks. This may affect individuals but not populations. In addition, gray wolves and grizzly bears could potentially pass through this area and be attracted to the game farm elk. The proposed game farm is not likely to cause impacts to bald eagles and peregrine falcons.

## **LAND USE/COMMUNITY**

The proposed game farm would be compatible with existing agricultural land uses. Areas east and northeast of the game farm, however, contain residences and a grade school in relatively close proximity (primarily 0.5 to 1 mile) to the proposed game farm. With respect to land use, however, no significant conflicts should result between operation of the game farm and the residential areas. Use of the Flathead National Forest land and private land by recreationalists and residents could be affected because of concerns for shooting activities at the game farm. Some neighbors also are concerned about the increase in human activity that would occur in the game farm area. Bissell School activities in the National Forest may be limited to areas farther from the game farm. Shooting game farm elk is perceived by some people in Montana as contrary to proper ethics and the concept of "fair chase".

Operation of the proposed game farm would provide employment for at least one seasonal workers. Local businesses providing goods and services (such as motels, vehicle rental dealers, grocery stores, restaurants, meatcutters, and taxidermists) would benefit the most as a result of increased spending due to operation of the game farm and spending by clients using the services of the game farm. No impacts to the local infrastructure would occur under the Proposed Action.

## **RISK/HEALTH HAZARDS**

There is a significant potential of elk to carry or become infected with a contagious wildlife disease or parasite such as tuberculosis, and then come in contact (through-the-fence, nose-to-nose, nose-to-soil, or ingress/egress) with wild deer, elk, or other wildlife. It is also possible that diseases and parasites carried by wild elk or deer could be introduced to domestic elk. Chronic wasting disease (CWD) also has been detected in game farm elk, but the mode of transmission is unknown and there is no test for this disease in living animals. Risk to human health from diseased animals could be significant, but routine brucellosis and tuberculosis testing requirements for game farm animals offer a measure of surveillance that minimizes the risk. There is a potential for pathogens, if present, to be transported in Tobie Creek downstream from the game farm; however, this is expected to be a minor risk due to disease testing requirements of game farm animals and the relatively low density of animals that would be in the enclosure for only a portion of each year. In addition,



surface water in this area is not expected to be used directly for human consumption without some form of treatment or boiling.

As mentioned above under Land Use/Community, several residences and a grade school are located approximately 0.5 to 1 mile from the game farm site, primarily to the northeast and east. This school and the residences are within average maximum ranges of high-powered big game rifles. The residences located south and east of the game farm, including Bissell School, are separated from the game farm site by one or more mountain ridges that should be effective in blocking bullets that are directed at elk in the game farm. Some of the residences northeast of the game farm are not necessarily blocked from the game farm by ridges with respect to shooting that could occur in the northern third of the game farm area. The presence of moderate tree density throughout the game farm and surrounding areas would provide additional protection for bullets used in the game farm area.

Accessible public land (Flathead National Forest) is located within 1 mile or less of the game farm. The Stovepipe Canyon USFS Road and Farm to Market Road are located from about 1,000 feet to 1 mile from the game farm. Mountain ridges, slopes, and tree cover provide protection to the general public that may be present in these areas.

### **AESTHETICS/RECREATION**

The visual character of the area may change as a result of the 8-foot high fence that has been constructed around the perimeter of the game farm. The impact would be minor and most likely short term since fences are a common sight in the area and the general vicinity has a moderate tree density with topographic ridges that blocks the fence from most surrounding areas.

The quality or quantity of recreation probably will decrease in proximity to the game farm enclosure because of the safety concern from shooting operations. This alteration is expected to occur primarily from local residents that frequent public land surrounding the game farm site. In addition, field trips to the National Forest by local school students probably would occur in areas farther from the game farm site.

### **CUMULATIVE EFFECTS**

The Proposed Action would result in potential impacts that are individually minor, but not cumulatively significant. Development of the proposed game farm within 1 mile of several residences would result in a minor cumulative loss of deer habitat in this area. Although deer are not physically excluded from the residential areas, the presence of people, dogs, livestock, and other disturbances degrade the habitat quality. Any action at the game farm site resulting in the loss of a trespassing gray wolf or grizzly bear might represent a minor cumulative impact to local populations, assuming other man-caused mortalities to these animals are occurring in the general region.

## **EA CONCLUSION**

MEPA and game farm statutes require FWP to conduct an environmental analysis for game farm licensing as described in the *Introduction* of this *Summary* section (p. 1). FWP prepares EAs to determine whether a project would have a significant effect on the environment. If FWP determines that a project would have a significant impact that could not be mitigated to less than significant, the FWP would prepare a more detailed EIS before making a decision.



Based on the criteria evaluated in this EA, an EIS would not be required for the Spoklie Tobie Creek game farm. The appropriate level of analysis for the Proposed Action is a mitigated EA because all impacts of the Proposed Action have been accurately identified in the EA, and all identified significant impacts would be mitigated to minor or none.

## MITIGATION MEASURES

The mitigation measures described in this section address both minor and significant impacts associated with the proposed Spoklie Tobie Creek game farm. FWP would require stipulations to mitigate all potentially significant impacts resulting from the Proposed Action. Potential minor impacts from the Proposed Action are addressed as mitigation measures that are strongly recommended to remain in compliance with state and federal environmental laws, but are not required.

### REQUIRED STIPULATIONS

The following stipulations are imposed by FWP for the Spoklie Tobie Creek game farm and are designed to mitigate significant impacts identified in the EA to below the level of significance:

- (1) *Report ingress of any wild game animals or egress of domestic elk to the Montana FWP immediately. The report must contain the probable reason why or how ingress/egress occurred.*
- (2) *Monitor the game farm perimeter fence on a daily basis and immediately after major snow, rain, and wind events to ensure fence integrity is maintained, especially from tree fall. Monitoring frequency can be reduced to biweekly (every 2 weeks) during periods when domestic elk are not in the game farm enclosure.*
- (3) *Install an offset electrified fence outside the game farm perimeter fence. Research in this area has demonstrated that a three-wire array would be effective in preventing wildlife ingress and protecting the game farm fence from damage by bears or other wildlife attempting to gain access into the enclosure. The offset electrified fence also should prevent nose-to-nose contact between domestic elk in the enclosure and wildlife outside the fence. Configuration of the three-wire array would be as follows relative to height above ground surface: first hot wire at 6 inches; second hot wire at 24 inches; and third hot wire at 48 inches (the game farm fence would provide the ground for hot wires). The hot wires should be offset from the game farm fence by a distance of at least 30 inches and less than 36 inches, and the charger should have a voltage output of at least 7,000 volts with a stored energy rating of 1.0 Joules or greater. Operation of the electrified wire must be verified daily when domestic elk are present in the game farm.*
- (4) *Remove elk gut piles from the game farm site within 24 hours of each elk shooting to minimize attracting wildlife.*

The four stipulations listed above are imposed to mitigate potentially significant risk to wildlife posed by the proposed game farm. Risk to wildlife from contact between game farm animals and wild game is potentially significant due to the site being located in an area currently utilized by wild game and predators. Information provided by the stipulations would help both the applicant and FWP to address ingress and egress incidents and to minimize contact between wild and domestic animals. These stipulations, in addition to existing FWP fencing and wildlife protection requirements, are expected to reduce the risk to wildlife to below significant. If fence integrity or ingress/egress becomes a problem, adjustment of fence requirements to include double fencing, additional electrification, or increased height may become necessary.

- (5) *Shooting in the game farm enclosure using high-powered rifles must not occur in the direction of residences that are located northeast of the game farm; this restriction is limited to the northern third of the game farm area due to limited protection by topographic ridges. A guide must accompany each harvester to be sure that shooting does not occur toward the residences described above. Signs shall be placed on the outside upper portion of the game farm perimeter fence spaced 100 feet apart that warn of shooting activities inside the fence area.*
- (6) *Shooting of domestic elk in the game farm using high-powered rifles is limited to the period of September through December.*

These two stipulations are imposed to mitigate a potentially significant risk to public health and safety due to the proximity of residences to the game farm site. Limiting high-powered rifles to a 4-month period coincident with the general public hunting season in Montana provides for an awareness of shooting that already exists during the hunting season (i.e., one-third of each year). The requirement to have a guide with each elk harvester to assure that shooting does not occur in a direction toward the residences not protected by topographic ridges would reduce the chances of impacting human health and safety (trees also provide protection from stray bullets). Posting signs on the outside of the perimeter fence will warn persons who may encounter the fence of shooting activities in the area.

The following mitigation measure has been included by the game farm applicant as part of the Proposed Action, and is repeated here as a required mitigation/stipulation because of its importance in reducing potentially significant impacts to below the level of significance:

- (7) *Construct a 10-foot high game farm fence along portions of the fence line that cross steep slopes.*

This mitigation measure would reduce the potential risk of ingress/egress from the game farm area. The 10-foot high fence along portions of the fence line would be placed due to steep slopes and potential snow buildup that could reduce the effective height of the fence.

## **RECOMMENDED MITIGATION MEASURES**

The following recommended mitigation measures address minor impacts identified in the Spoklie Tobie Creek game farm EA for resources that have the most potential effects from the Proposed Action:

### **Land Resources**

- Use coated steel or treated wood for fence posts. If concrete is used to set fence posts, sulfate resistant concrete is recommended.
- Maintain a reasonable stocking rate within the game farm enclosures to minimize changes in soil structure and potential increases in runoff and erosion from disturbed ground. A "reasonable stocking rate" is defined under EA Definitions in the introductory section of Part II - Environmental Review of this EA.

### **Water Resources**

- Maintain a reasonable stocking rate in the game farm area to mitigate potential impacts from fecal matter and sediment in runoff water. Potential water quality impacts also could be minimized by disposing excess fecal material at a site that is isolated from surface water and groundwater.



- For any areas that may have erosion and sedimentation problems, utilize best management practices (BMPs) where surface water could enter Tobie Creek or its tributaries in the game farm area. The BMPs may include earth berms, straw bale dikes, vegetative buffer zones, and/or silt fences.

#### **Vegetation Resources**

- Stock elk at a density which would preserve the vegetative resource and soil integrity over time; monitor vegetation to insure over-utilization of the vegetative resource does not occur; feed only certified weed-seed-free hay; and develop a weed control plan in conjunction with the Flathead County Weed Control District.

#### **Wildlife Resources**

- Store hay, feed, and salt away from exterior fences or enclosed in bear-resistant containers or buildings.
- Feed game farm animals at interior portions of the enclosure and not along the perimeter fence. Due to the presence of both grizzly and black bears in this area, it is extremely important to limit the exposure of game farm animal feeds to bears.
- Remove excess fecal material and waste feed from the game farm and deposit at an approved site not likely to be used by humans, and domestic and wild animals.

#### **Land Use/Community**

No mitigation measures are recommended for land use/community.

#### **Risk/Health Hazards**

The mitigation measures recommended above for Wildlife Resources are applicable to Risk/Health Hazards. In addition, risk of disease epidemic or heavy parasite infections among domestic elk can be minimized by maintaining a reasonable domestic elk stocking rate in relation to the enclosure size, periodic removal of manure from concentration areas, and development of a disease immunization and parasite treatment protocol as applicable to domestic elk.

#### **Aesthetics/Recreation**

No mitigation measures are recommended for aesthetics/recreation.





## **PART I. GAME FARM LICENSE APPLICATION**

### ***ENVIRONMENTAL ASSESSMENT CHECKLIST***

Montana Fish, Wildlife & Park's authority to regulate game farms is contained in sections 87-4-406 through 87-4-424, MCA and ARM 12.6.1501 through 12.6.1519.

1. **Name of Project:** Spoklie Tobie Creek Game Farm

**Date of Acceptance of Completed Application:** October 16, 1998

2. **Name, Address and Phone Number of Applicant(s):**

Grant Spoklie, 658 White Basin Road, Kalispell, MT 59901  
phone 406-756-1462

3. **If Applicable:**

**Estimated Construction/Commencement Date:** April 1998

**Estimated Completion Date:** November 1998

**Is this an application for expansion of existing facility or is a future expansion contemplated?**

No.

4. **Location Affected by Proposed Action (county, range and township):**

Flathead County, 81 acres in the following:  
Sec. 11 & 12; T30N, R23W.

5. **Project Size:** Estimate number of acres that would be directly affected that are currently:

(a) Developed:

residential..... acres

industrial..... acres

(b) Open Space/Woodlands/Areas..... acres

(c) Wetlands/Riparian Areas..... 10 acres

(d) Floodplain..... acres

(e) Productive:

irrigated cropland..... acres

dry cropland..... acres

forestry..... 71 acres

rangeland..... acres

other..... acres

**6. Map/site plan:**

The following maps are included in the introductory summary of this EA:

- Figure 1:** Site Map Showing Land Ownership  
**Figure 2:** Land Use and Land Cover  
**Figure 3:** Big Game Distribution

**7. Narrative Summary of the Proposed Action or Project including the Benefits and Purpose of the Proposed Action:**

FWP received an initial application dated February 9, 1998 from Grant Spoklie to construct an elk game farm in Flathead County, Montana. An amended application dated September 14, 1998 was received from Grant Spoklie that included a reduction in the original proposed size of the game farm enclosure (original = 180 acres; amended = 81 acres). No expansion of the 81-acre game farm is being considered as part of this EA. For purposes of this EA, the proposed game farm is referred to as the "Tobie Creek game farm" because of its location along this creek. The proposed Tobie Creek game farm would be located approximately 6 miles west of Whitefish and 13 miles northwest of Kalispell, Montana. A caretaker would live on-site during the period each year that elk are present in the game farm enclosure. The property is leased from Stoltze Land & Lumber Company.

The Proposed Action consists of placing up to 30 elk in the game farm during the period of early May through January of each year for the primary purpose of culling surplus, mature bull elk profitably by controlled shooting using clients who desire trophy elk. While up to 30 elk may be in the game farm at any one time, the average number would be approximately 14-16 elk. Elk would be removed earlier than January if travel to the area is restricted by snow depth. The application includes the options of having elk cows and calves, and for additional uses including breeding stock, meat production, and antler production. The shooting operation is also referred to as "put and take" fee shooting. Most elk released into the proposed game farm would come from existing animals owned by Grant and Robert Spoklie. Any elk remaining at the end of each season would be transported to a licensed game farm, most likely owned by Spoklie.

As mentioned above, game farm elk would not be left in the game farm during most of the winter season (approximately January through April). Perimeter fence gates would remain locked at all times except when game farm animals are moved into or out of the enclosure, at which time the gates would be monitored to prevent ingress/egress. The fence has been constructed and wild deer were removed from the game farm enclosure.

The applicant would sell and dispose of domestic elk in accordance with Montana game farm and disease control requirements stipulated in Montana statute and administrative rules. Fence construction has been completed and will undergo a final inspection by FWP prior to issuance of the license to assure that the fence is in compliance with requirements of FWP under ARM 12.6.1503A, and proposed changes to these rules (i.e., New Rules XII through XVII that would repeal Rules 12.6.1501 through 12.6.1519). Fencing consists of 8-foot high, tightlock mesh game fence, 2½-inch or larger diameter steel pipe posts spaced not more than 24 feet apart. Wooden posts are used in some of the moist areas. Posts are set approximately 3 feet into the soil. Corner posts are braced and cemented in the ground. Several reaches of fence extend an additional 2 feet in height (10 feet total height) where the fence crosses steeper slopes to mitigate potential problems with ingress or egress. Some areas of the fenceline also have additional wire at the base of the fence to minimize gaps where uneven surface conditions occur.



A total of five 8-foot high steel gates have been constructed around the perimeter fence. Two of these gates are for purposes of easement by Stoltze Land & Lumber Company and for additional emergency fire control access. A holding facility would be constructed in the east-central portion of the game farm for purposes of handling and testing the elk; this would be constructed according to standards of the Montana Department of Livestock (DoL). A quarantine facility would not be constructed at this game farm; if needed, elk would be moved to an approved quarantine facility at the existing Spoklie game farm south of Kalispell.

**8. Listing of any other Local, State or Federal agency that has overlapping or additional jurisdiction:**

**(a) Permits:**

<u>Agency Name</u>	<u>Permit</u>	<u>Approval Date and Number</u>
Department of Livestock	approval of quarantine and handling facility	Pending

**(b) Funding:**

<u>Agency Name</u>	<u>Funding Amount</u>	
None		

**(c) Other Overlapping or Additional Jurisdictional Responsibilities:**

<u>Agency Name</u>	<u>Type of Responsibility</u>
Montana Department of Livestock	disease control
Montana Department of Environmental Quality (DEQ)	water quality, air quality waste management
Montana State Historical Preservation Office (SHPO)	cultural resources
Montana Department of Natural Resources and Conservation (DNRC)	water rights
Natural Resource Conservation Service (NRCS)	soil conservation
Flathead County Conservation District	stream crossings
U.S. Army Corps of Engineers (COE)	wetlands
Flathead County Weed Control District	weed control

**9. List of Agencies Consulted During Preparation of the EA:**

Montana Department of Livestock

Montana Department of Environmental Quality

Montana State Historical Preservation Office

Montana Department of Natural Resources and Conservation

U.S. Department of Agriculture, Natural Resource Conservation Service

Flathead County Conservation District

Flathead Regional Development Office

## **REFERENCES:**

**Spoklie, Grant, 1998.** Application A for Spoklie "Tobie Creek" Game Farm. Initial application dated February 9, 1998 and modified application dated September 14, 1998.

## **PART II. ENVIRONMENTAL REVIEW**

This section of the EA presents results of an environmental review of the proposed Spoklie Tobie Creek game farm (Proposed Action). The assessment evaluated direct and indirect impacts and cumulative effects of the Proposed Action on the following resources of the physical environment: land, air, water, vegetation, fish and wildlife; and the following concerns of the human environment: noise, land use, human health risk, community impacts, public services and taxes, aesthetics and recreation, and cultural and historical resources. Impacts were determined to fall in one of four categories: unknown, none, minor and significant. For the purposes of this EA, and in accordance with ARM 12.2.429 through 12.2.431, these terms are defined as follows:

### **EA DEFINITIONS**

**Cumulative Effects:** Collective impacts on the physical and human environment of the Proposed Action when considered in conjunction with other past and present actions related to the Proposed Action by location or generic type. Related future actions must also be considered when these actions are under concurrent consideration by any state agency through pre-impact statement studies, separate impacts statement evaluation, or permit processing procedures.

**Unknown Impacts:** Information is not available to facilitate a reasonable prediction of potential impacts.

**Significant Impacts:** A determination of significance of an impact in this EA is based on individual and cumulative impacts from the Proposed Action. If the Proposed Action results in significant impacts that can not be effectively mitigated, FWP must prepare an EIS. The following criteria are considered in determining the significance of each impact on the quality of the human environment:

- severity, duration, geographic extent and frequency of occurrence of the impact;
- probability that the impact would occur if the Proposed Action occurs;
- growth-inducing or growth-inhibiting aspects of the impact, including the relationship or contribution of the impact to cumulative effects;
- quantity and quality of each environmental resource or value that would be affected, including the uniqueness and fragility of those resources or values;
- importance to the state and to society of each environmental resource or value that would be affected;



- any precedent that would be set as a result of an impact of the Proposed Action that would commit FWP to future actions with significant impacts or a decision in principle about such future actions; and
- potential conflict with local, state, or federal laws, requirements, or formal plans.

**Reasonable Stocking Rate:** The density of animals appropriate to maintain vegetative cover in pasture condition that minimizes soil erosion from major precipitation events and snowmelt. Factors to consider in determining an overall reasonable stocking rate include vegetation type and density, ground slope, soil type, and precipitation.

## PHYSICAL ENVIRONMENT

1. <u>LAND RESOURCES</u> Would the Proposed Action result in:	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	UNKNOWN	NONE	MINOR	SIGNIFICANT		
a. Soil instability or changes in geologic substructure?		X				
b. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil which would reduce productivity or fertility?			X		Yes	1(b)
c. Destruction, covering or modification of any unique geologic or physical features?		X				
d. Changes in siltation, deposition or erosion patterns that may modify the channel of a river or stream or the bed or shore of a lake?		X				

### AFFECTED ENVIRONMENT:

The proposed Spoklie game farm is located on leased property about 6 miles west of Whitefish, Montana in forested, hilly terrain adjacent to the Flathead National Forest. The Stillwater River and its flat-lying valley is located about 2 miles to the east. Elevation ranges from 3,100 to 3,500 feet above mean sea level. Timber has been cut from portions of the leased property (owned by Stoltze Land & Lumber Co.) in the past, most recently this past summer as part of tree clearing operations for the game farm fence. Tobie Creek drains the entire proposed game farm area, flowing south and eastward to the Stillwater River.

General topography of the proposed game farm is dominated by glacial features resulting from the late Wisconsin Cordilleran ice sheet which covered the land surfaces of northwest Montana to an elevation of 5,100 feet (Johns, 1970, p. 7). Glaciofluvial features include kettle holes, swales, and hummocky topography characteristic of ground and lateral moraines. A strong north by west linear alignment of the hills and valleys is evident on topographic maps of the area. Bedrock outcrops are present on the property, primarily belonging to the preCambrian-age Belt Series Formation. These outcrops are generally present west of Tobie Creek along the steep slopes between the creek and a broad gently sloping terrace above the creek. Some bedrock also outcrops on knobs located east of the creek. Slopes range from gentle (6%) in the Tobie Creek drainage to steep (24%) on the west side of Tobie Creek.

Soil information was provided by the Kalispell field office of the Natural Resources Conservation Service (NRCS). A soil survey has not been completed by the NRCS in the vicinity of the proposed game farm, but the NRCS forwarded soil information contained in the Land Systems Inventory compiled by the Flathead National Forest. Two landtype associations are present in the proposed game farm area: Andeptic Cryoboralfs, which are present generally along the west side of Tobie Creek, and Typic Eutroboralfs, which are present east of Tobie Creek.

Soils present on both landtype associations are primarily volcanic ash influenced silt loams formed in glacial tills derived from argillites and limestones. Andeptic Cryoboralfs (soils west of Tobie Creek) tend to overlie alkaline to moderately alkaline, very gravelly, silt loam to loamy glacial till. The subsoil contains 15% to 50% rock fragments and 15% to 35% lime. Typic Eutroboralfs (soils east of Tobie Creek) are very deep with extremely gravelly subsoils, are calcareous, and have accumulations of lime at depth.

Soil information available from the Flathead National Forest Land Systems Inventory is not mapped at a scale small enough to note areas that may be of special concern. One such area is the cattail wetland covering a few acres in the Tobie Creek drainage bottom. Soils in this wetland area may possess different characteristics due to saturated conditions. Both landtype soils are generally susceptible to compaction which, if increased



markedly, can cause an increase in runoff and erosion. Lime accumulations in both landtype soils tend to limit root penetration so trees are susceptible to windthrow.

#### **PROPOSED ACTION:**

- 1(b) Environmental impacts to land and soil resources associated with the Proposed Action of raising elk on the 81-acre site are directly related to the stocking rate. The relatively small portion of the enclosure area west of Tobie Creek contains moderately steep to steep slopes where soil will erode if an adequate vegetative cover is not maintained. Saturated soil in the wetland areas along Tobie Creek present a risk of compaction and disruption if heavy use by the elk occurs. It is expected that 30 elk on a seasonal basis would not result in significant impacts to overall soil stability. In addition, Tobie Creek extends through a relatively low gradient pathway of about 3 miles prior to entering the Stillwater River.

#### **NO ACTION:**

Under the No Action Alternative, the current property condition would not change and no impacts to soil and land resources are expected. If additional logging activities were to occur on the property in lieu of using the area for a game farm, impacts to the soil resource could be as great or greater from logging than its use by elk on the game farm. Similar impacts could occur if other animals are allowed to graze in the enclosure.

#### **CUMULATIVE EFFECTS:**

The cumulative effect of using the proposed area as a game farm is expected to be slight. The proposed permit area does not contain any unique or significant soil or land resources that would be lost due to the proposed land use change.

#### **COMMENTS:**

There is a moderate risk of corrosion to uncoated steel due to the alkaline nature of the soil which should be considered for the fence. The tree windthrow hazard should be considered with respect to the fence during operation of the game farm due to the limiting nature of soil to root penetration.

**Required Stipulations:** None

#### **Recommended Mitigation Measures:**

- Use coated steel or treated wood for fence posts. If concrete is used to set fence posts, sulfate resistant concrete is recommended.
- Monitor the fence on a periodic basis to determine potential hazards from wind-thrown trees.
- Maintain a reasonable stocking rate within the game farm enclosures to minimize changes in soil structure and potential increases in runoff and erosion from disturbed ground. A "reasonable stocking rate" is defined under EA Definitions in the introductory section of Part II - Environmental Review of this EA.

#### **REFERENCES:**

Johns, Willis M. 1970. Geology and Mineral Deposits of Lincoln and Flathead Counties, Montana. Montana Bureau of Mines and Geology, Butte, Montana, Bulletin 79. 182 pages with maps.

U.S. Department of Agriculture, Natural Resources Conservation Service. Unpublished soil survey data provided by Leschin, Soil Scientist, Kalispell field office, April 7, 1998.

## PHYSICAL ENVIRONMENT

2. <u>AIR</u> Would the Proposed Action result in:	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	UNKNOWN	NONE	MINOR	SIGNIFICANT		
a. Emission of air pollutants or deterioration of ambient air quality?			X		Yes	2(a)
b. Creation of objectionable odors?			X		Yes	2(b)
c. Alteration of air movement, moisture, or temperature patterns or any change in climate, either locally or regionally?		X				
d. Adverse effects on vegetation, including crops, due to increased emissions of pollutants?		X				

### AFFECTED ENVIRONMENT:

The proposed game farm site is situated in a mountainous area approximately 1 mile away from commonly traveled public roads (e.g., Farm to Market Road). This area is sparsely populated with several residences located primarily 0.5 to 1 mile northeast and east of the game farm site (Figure 2). This area has no apparent air quality problems. This area is not classified for air quality attainment status (DEQ 1997).

### PROPOSED ACTION:

- 2(a) Fence construction and road use may result in short-term minor increases in particulate matter in ambient air; fence construction has been completed at the game farm with no reported air quality problems.
- 2(b) Minor odor problems may result from waste management practices in areas where elk concentrate to feed in the 81-acre pasture. This area, however, would be one-half mile or more from most residences discussed above.

### NO ACTION:

No impacts to air quality are expected to result from the No Action Alternative.

### CUMULATIVE EFFECTS:

No additional impacts to air resources from past, present or reasonably foreseeable activities near the proposed game farm are anticipated.

### COMMENTS:

Dust and odor are not expected to be a significant concern at the proposed game farm site due to the mountainous terrain and distances to the relatively sparse population in this area. If dust and/or odor problems arise, mitigation measures can be implemented.

**Required Stipulations:** None



**Recommended Mitigation Measures:**

- Dust management activities include spraying water on unpaved roads during the dry season, vegetating exposed ground where possible, protecting fill piles from wind erosion, and limiting ground disturbance to only the area necessary to complete the job.
- Employ the following best management practices (BMPs) to reduce odor problems if they occur: (1) incorporate waste into soil quickly by plowing or discing; and (2) spread waste during cool weather or in the morning during warm, dry weather. These and other BMPs are described in "Guide to Animal Waste Management and Water Quality Protection in Montana" (DEQ 1996).

**REFERENCES:**

Montana Department of Environmental Quality (DEQ), 1997. Montana Air Quality Non-Attainment Areas. Revised January 1997.

DEQ, 1996. Guide to Animal Waste Management and Water Quality Protection in Montana. Helena, MT.

## PHYSICAL ENVIRONMENT

3. <b>WATER</b> Would the Proposed Action result in:	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	UNKNOWN	NONE	MINOR	SIGNIFICANT		
a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?			X		Yes	3(a)
b. Changes in drainage patterns or the rate and amount of surface runoff?			X		Yes	3(a)
c. Alteration of the course or magnitude of flood water or other flows?		X				
d. Changes in the amount of surface water in any water body or creation of a new water body?		X				
e. Exposure of people or property to water related hazards such as flooding?		X				
f. Changes in the quality of groundwater?			X		Yes	3(f)
g. Changes in the quantity of groundwater?		X				
h. Increase in risk of contamination of surface or groundwater?			X		Yes	3(f)
i. Violation of the Montana non-degradation statute?		X				
j. Effects on any existing water right or reservation?		X				
k. Effects on other water users as a result of any alteration in surface or groundwater quality?		X				
l. Effects on other water users as a result of any alteration in surface or groundwater quantity?		X				

### AFFECTED ENVIRONMENT:

The Spoklie game farm area is located in the eastern mountainous foothills of the Salish Mountains. The Stillwater River and Valley are located approximately 2 miles east of the game farm site (Figures 1 and 2). Mean annual flow in the Stillwater River near Whitefish is 339 cubic feet per second (cfs), with low and high daily mean flows of 17 cfs and 4,320 cfs, respectively (U.S. Geological Survey 1996). The Stillwater River has a low priority on Montana's List of Waterbodies in Need of Total Maximum Daily Load (TMDL) Development (Montana Department of Environmental Quality (DEQ) 1998a). Probable causes of TMDL impairment are nutrients, pathogens, siltation, suspended solids, and thermal modifications from agriculture, silviculture, and natural sources (DEQ 1998a). Tally Lake is located approximately 2.5 miles west of the game farm site (Figure 1).

Tobie Creek is a perennial stream that drains the entire game farm area, flowing southeastward from the game farm site nearly 3 miles to the Stillwater River (Figures 1 and 2). The Tobie Creek channel, which extends through the west-central and southern portions of the game farm area (Figure 2), flows in a relatively small, stable meandering channel that has a low gradient. Estimated flow in this stream during a November 1998 site visit was about 100 gallons per minute (gpm). There was no evidence of major flooding along this portion of Tobie Creek. Several water rights (approximately 13) for Tobie Creek approximately 1 mile or more downgradient of the game farm are listed with the Montana Department of Natural Resources and Conservation (DNRC 1998); uses listed for this water include domestic, stock, irrigation, and fish/wildlife.



No springs or ponds were observed within the game farm enclosure; however, wet, boggy wetland areas occur along Tobie Creek, especially in the southern third of the game farm site (see following *Vegetation* section). Another wetland area is in the northeastern portion of the game farm where an ephemeral drainage extends northeastward to eventually join Tobie Creek (Figure 2). Water for the domestic elk would be supplied by Tobie Creek. Adjustable fencing extensions are used at the base of the game farm fence where it crosses Tobie Creek at four locations.

Groundwater in the vicinity of the proposed game farm site likely flows eastward from the mountains to the Stillwater River Valley bottom. Several water wells have been drilled within 1 mile of the proposed game farm site (DNRC 1998). The nearest wells are for domestic purposes approximately 0.5 to 1 mile east and northeast of the game farm site; these wells range in depth from about 100 to 300 feet. Depth to groundwater in the wells ranges from approximately 10 to 180 feet below ground surface.

#### PROPOSED ACTION:

- 3(a) Increased runoff and erosion could occur in some areas of the game farm pasture if the stocking rate exceeds the carrying capacity of the pasture and vegetative cover is diminished. The relatively large game farm area and proposed maximum stocking rate (30 elk on 81 acres) on a seasonal basis, however, should allow for the potential to maintain adequate vegetative cover. Direct ground disturbance by elk to wetland areas and banks along Tobie Creek would increase sedimentation to the creek due to soil erosion and a reduction in the filtration function of the wetlands along the creek. Undisturbed riparian areas downgradient of the game farm site probably would remove some of the increased sediment load. Excessive flow in Tobie Creek from snowmelt and/or heavy rainfall events could damage or make unstable the game farm fence where it crosses the creek; however, evidence of major flooding was not observed along this portion of the creek.

If vegetative cover is reduced significantly, the game farm operation could meet the definition of an "animal feeding operation" (ARM 17.30.1304(3)). If water containment structures are needed on the project site to control runoff and do not have the capacity for the 25-year, 24-hour storm, a "concentrated animal feeding operations" (CAFO) permit must be obtained to permit the discharge. A CAFO permit, however, is not expected to be required for the Spoklie game farm operation (DEQ 1998b). Filling or dredging of any wetlands or waters of the U.S. (e.g., culvert installation) may require a "404 Permit" from the U.S. Army Corps of Engineers (COE). The game farm land owner (Stoltze Land & Lumber Co.) has secured a "310 Permit" from the local county conservation district to armor selected areas along the creek bank to minimize damage to soil and vegetation from the domestic elk (Flathead Conservation District, 1998).

- 3(f) Domestic elk fecal matter and nutrient-enriched water may have a minor effect on the quality of groundwater and surface water in the vicinity of the game farm, primarily during periods of snowmelt and major precipitation events. Minor increases in nutrient (e.g., nitrate, ammonia, organic nitrogen) levels in groundwater and surface water may occur as a result of the game farm operation. The relatively high use of this area by white-tailed deer, however, suggests that some minor nutrient loading of water resources may have already occurred. Increased disturbance of wetland areas by the domestic elk would contribute to nutrient increases because of increased fecal matter in these wet areas, and a reduction in nutrient filtration/adsorption capacity. Potential transport of pathogens from the game farm operation in Tobie Creek is discussed in the *Fish/Wildlife* and *Risk/Health Hazards* sections that follow.

#### **NO ACTION:**

Current hydrologic conditions are not expected to change under the No Action Alternative, unless more intensive logging were to occur on the property, or other animals are allowed to graze in the enclosure.

#### **CUMULATIVE EFFECTS:**

Significant cumulative effects on water resources are not expected to occur as a result of the game farm operation in the 81-acre enclosure.

#### **COMMENTS:**

Due to potential minor impacts identified above from increased runoff and elk fecal matter, several mitigation measures are recommended. Other water quality protection practices may be required by DEQ if it is determined that a CAFO permit is necessary or other water quality impacts occur. Refer to "Guide to Animal Waste Management and Water Quality Protection in Montana" (DEQ 1996) and "Common Sense and Water Quality, A Handbook for Livestock Producers" (Montana Department of Health and Environmental Sciences, 1994) for further information on mitigation measures and CAFO permits. The following management practices are recommended to minimize the risk of discharging pollutants to state water:

**Required Stipulations:** None.

#### **Recommended Mitigation Measures:**

- Maintain a reasonable stocking rate in the game farm area to mitigate potential impacts from fecal matter and sediment in runoff water. Potential water quality impacts also could be minimized by disposing excess fecal material at a site that is isolated from surface water and groundwater.
- For any areas that may have erosion and sedimentation problems, utilize best management practices (BMPs) where surface water could enter Tobie Creek or its tributaries in the game farm area. The BMPs may include earth berms, straw bale dikes, vegetative buffer zones, and/or silt fences. As mentioned above, the game farm land owner has obtained a 310 Permit from the local conservation district to armor selected areas along the creek bank to minimize impacts from the domestic elk.

#### **REFERENCES:**

**Montana Department of Environmental Quality (DEQ), 1998a.** Montana List of Waterbodies in Need of Total Maximum Daily Load Development 1998.

**DEQ, 1998b.** Letter and Field Investigation Report from Timothy Byron, Water Quality Division, to Mr. Robert Spoklie. November 23, 1998.

**DEQ, 1996.** Guide to Animal Waste Management and Water Quality Protection in Montana. Helena, MT.

**Flathead Conservation District, 1998.** Natural Streambed & Land Preservation Act (310 Permit). For FH Stoltze Land & Lumber Co. regarding Tobie Creek. Board's Decision dated Sept. 22, 1998.

**Montana Department of Health and Environmental Sciences (DHES), 1994.** Common Sense and Water Quality, A Handbook for Livestock Producers. Water Quality Division. Helena, MT.

**Montana Department of Natural Resources and Conservation (DNRC), 1998.** Computer File Search of Water Rights. Helena DNRC office. Obtained online from Internet. December 1998.

**U.S. Geological Survey, 1996.** Annual Water Resources Report, Montana, Water Year 1995.



## PHYSICAL ENVIRONMENT

4. <u>VEGETATION</u> Would the Proposed Action result in:	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	UNKNOWN	NONE	MINOR	SIGNIFICANT		
a. Changes in the diversity, productivity or abundance of plant species?			X		Yes	4(a)
b. Alteration of a plant community?			X		Yes	4(a)
c. Adverse effects on any unique, rare, threatened, or endangered species?		X				
d. Reduction in acreage or productivity of any agricultural land?		X				
e. Establishment or spread of noxious weeds?			X		Yes	4(a)

### AFFECTED ENVIRONMENT:

The proposed game farm site has been selectively logged, and is classified as forested. Upland areas are dominated by Douglas-fir, larch, and grand fir. Understory species in logged areas are primarily shrubby, dominated by Oregon grape, kinnickinnick, and snowberry. Few grass and sedge species were present on upland timbered sites, and grass production is generally inconsequential in terms of total understory biomass. Tobie Creek and other wetland areas have an overstory of spruce, and birch, and an understory that varies from sedge and grass, to shrubs such as red-osier dogwood, willow, thimbleberry, raspberry, and alder. While sedge and grass production is high in the wetlands, the wetlands are boggy and appear to have surface water throughout much of the year. Total area of wetland in the game farm enclosure is estimated at approximately 10 acres.

The perimeter of the tract has been cleared for fencing purposes, and reseeded and mulched. After one growing season there was no visible revegetation around the perimeter. Successful revegetation will help stabilize soils on steep slopes, and provide some forage for elk.

Based on a database search of the Montana Natural Heritage Program (MNHP) files, and a reconnaissance level survey of the tract, there do not appear to be any-federally listed plants within the proposed game farm. A population of yellow lady's-slipper (*Cypripedium calceolus*) was located on the proposed game farm (M. Sloan, pers. comm., 1998). Yellow lady's-slipper is ranked sensitive by the U.S. Forest Service, but is not a federally-listed endangered species.

Two Montana State listed Category 1 noxious weeds – spotted knapweed (*Centaurea maculosa*) and Canada thistle (*Cirsium arvense*) – are present on the proposed game farm. Category 1 weeds are currently established and generally widespread. Management criteria include containment and suppression of existing infestations and prevention of new infestations (Montana Dept. of Agriculture (MDOA) 1995). Spotted knapweed is fairly ubiquitous along roads, in clearings, and in more open, upland stands of timber. Canada thistle is present in lower populations, and is usually found in disturbed areas near streams or wetlands.

Musk thistle and hounds tongue are present in low density on the proposed game farm. While not state-listed weed species, they are weedy, and indicators of a disturbed site. The musk thistle is well infested with the seed eating weevil *Rhinocyllus conicus*, which may help decrease musk thistle plant density (Story, J. 1992).

## **PROPOSED ACTION:**

- 4(a) The game farm/shooting preserve would graze up to 30 elk on 81 acres from May through January, depending on snow depth. Domestic elk would utilize forage available on the tract; no additional forage would be provided (B. Spoklie, pers. comm., 1998). Assessing useable forage on the tract is difficult. Elk prefer grass and forbs, utilizing shrubs primarily in the winter when grass and forbs are unavailable (U.S. Dept. of Agriculture (USDA) 1972). Grass and sedge species populate small clearings that range in size from less than 1 acre to about 4 acres. Grass and sedge production ranges from less than 1000 pounds/acre to over 4,000 pounds/acre. The clearings with high forage production are also wet for much of the non-winter period, limiting some use of these grass and sedge species by elk.

Thirty elk would require approximately 105,300 pounds of forage for the 9-month period of use. It is estimated that the game farm enclosure produces less than half of that in useable grass and sedge forage. The balance of the forage would be derived from forbs, shrubs, and tree species. Several of the shrubs present (red-osier dogwood, Oregon grape, Canada buffaloberry, snowberry, alder, thimbleberry, and raspberry) are good browse species, and would be utilized by elk; however, impacts to vegetation are expected to be relatively minor from 30 elk over a seasonal period of up to 9 months. The weed population in the game farm area may increase in areas that have greater ground disturbance from the elk.

## **NO ACTION:**

The No Action Alternative would result in no change in the existing condition or use of the vegetation on or around the tract, unless logging of the area were to increase.

## **CUMULATIVE EFFECTS:**

The surrounding area has been impacted to some extent from logging, conversion of lowland forests to agricultural land, and residential subdivision. The severity, duration, geographic extent, and frequency of occurrence of impacts to vegetation from this particular game farm, however, are not expected to result in additional significant cumulative effects to vegetation resources.

## **COMMENTS:**

**Required Stipulations:** None

**Recommended Mitigation Measures:**

- Stock elk at a density which would preserve the vegetative resource and soil integrity over time; monitor vegetation to insure over-utilization of the vegetative resource does not occur; feed only certified weed-seed-free hay; and develop a weed control plan in conjunction with the Flathead County Weed Control District.

## **REFERENCES:**

Montana Dept. of Agriculture (MDOA), 1995. County Noxious Weed Control Act, Title 7, Chapter 22, MCA 1995. Administrative Rules 4.5.202.

Montana Natural Heritage Program (MNHP), 1998. Letter dated October 28, 1998. Montana Natural Heritage Program, Helena, MT.



**Sloan, M. 1998.** Local resident. Personal communication, November 25, 1998.

**Spoklie, B., 1998.** President, Spoklie Farms. Personal communication, November 2, 1998.

**Story, J. 1992.** Biological Control of Weeds: Selective, Economical and Safe. Western Wildlands, Summer 1992. pp 18-23.

**U.S. Department of Agriculture (USDA), 1972.** Wildland shrubs-their biology and utilization. USDA Forest Service General Tech. Report INT-1, 1972. Intermountain Forest and Range Expt. Sta., Ogden, UT 84401. 494 pp.

## PHYSICAL ENVIRONMENT

5. <u>FISH/WILDLIFE</u> Would the Proposed Action result in:	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	UNKNOWN	NONE	MINOR	SIGNIFICANT		
a. Deterioration of critical fish or wildlife habitat?			X		No	5(a)
b. Changes in the diversity or abundance of game species?			X		No	5(b)
c. Changes in the diversity or abundance of nongame species?		X				5(c)
d. Introduction of new species into an area?		X				5(d)
e. Creation of a barrier to the migration or movement of animals?			X		No	5(e)
f. Adverse effects on any unique, rare, threatened, or endangered species?			X		Yes	5(f)
g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest or other human activity)?			X		No	5(g)
h. Increased risk of contact and disease between game farm animals and wild game?				X	Yes	5(h)

### AFFECTED ENVIRONMENT:

The proposed 81-acre game farm is located in forested mountain habitat on either side of Tobie Creek approximately 6 miles west of Whitefish, Montana. The entire proposed game farm site and surrounding Stoltze Land & Lumber Co. land was selectively logged during the early 1970s, and a 40-acre parcel within the game farm enclosure was selectively logged during the summer of 1998. The proposed game farm is already fenced to exclude big game and the site is grazed by several horses and mules. The general area is used by a variety of big game species including white-tailed deer, mule deer, elk, moose, black bear, and mountain lions.

The Tobie Creek area is located on the eastern footslopes of the Salish Mountains. This mountain range supports a large population of white-tailed deer. Based on white-tailed deer research conducted in this area (Mundinger and Riley 1982; Dusek and Morgan 1991; Morgan 1993; Sime 1996), there are two discrete herd units associated with the mountain range. The southern herd unit includes the Tobie Creek area and the proposed game farm. These deer winter in the Kuhn's Wildlife Management Area (includes the Bowser Lake area), Stillwater State Forest, and the eastern boundary of the Tally Lake District (this area hereafter referred to as the Bowser/Tally Winter Range). Deer from this area generally migrate north and northwest to summer in the Star Meadows area and the Good Creek drainage, but some deer are year-long residents in this area. The migratory corridor from winter range to summer range includes Tobie Creek (Figure 3).

The yearlong range of the white-tailed herd unit is encompassed by Hunting District 102. The northern herd unit range encompasses Hunting District 101 and the winter range is located near Murphy and Dickie Lakes. Research mentioned above has shown that there is some exchange of deer between these two herd units. Population estimates for an 8-year period prior to the severe winter of 1996-97 showed that deer numbers ranged from 4,409 to 6,545 in the southern herd unit and 1,973 to 5,728 in the northern herd unit (Sime 1996).



The area used for wintering by the Bowser/Tally deer herd varies considerably based on winter severity. The core area during severe winters is located in the Bowser Lake area, while during mild winters up to 50 percent of the deer will winter in the vicinity of Twin Lakes, Bootjack Lake, and the east face of Pilot Knob (C. Sime, pers. comm., 1998b). Likewise, time spent on the winter range also varies with winter severity. During the severe winter of 1996-97, deer were confined to the winter range for an average of 159 days, while the average for the 7 preceding years was only 107 days (Sime 1998a).

Data collected from movements of radio-marked deer show that there is a high degree of fidelity to seasonal ranges and specific migration routes (C. Sime, pers. comm., 1998b). Migration corridor is narrow and deer do not have many alternative routes through their migration corridor as they move from north to south in late fall and south to north in spring. Accumulated snow in the upper elevations of the foothills impairs or inhibits movement of white-tailed deer and marks the western boundary of the migration corridor. Residential housing and conversion of forested habitats to pasture lands at lower elevations marks the eastern boundary of the migration corridor. Radio-marked white-tailed deer seem to follow riparian zones and take advantage of denser vegetative cover along riparian corridors during migration movements. Characteristics of the Tobie Creek drainage with its forest cover, topographic complexity, and moderate elevations in the lower reaches make it very suitable as a migration corridor. Movements of radio-marked deer have confirmed the suitability of Tobie Creek as a migration corridor (C. Sime, pers. comm., 1998b).

The general area of the proposed game farm is used as both winter range and year-long range by white-tailed deer. During summer, this general area supports 10-15 white-tailed deer per square mile, and during mild to average winters, deer may concentrate in this area in densities of up to 60 deer per square mile (C. Sime, pers. comm., 1998b). One of 15 deer captured and marked on Pilot Knob in 1989 remained in the Pilot Knob-Tobie Creek-Lost Creek area for the 4 years that it was monitored. A study by Morgan (1993) showed that white-tailed deer preferred moist riparian habitats during summer for fawn-rearing. The Tobie Creek area is similar to Star Meadows and Good Creek where this study was conducted, and is considered suitable fawn-rearing habitat (C. Sime, pers. comm., 1998b).

At least 3 white-tailed deer were herded out of the proposed game farm enclosure prior to closure of the fence during October 1998 (B. Spoklie, pers. comm., 1998). A reconnaissance survey of the general game farm area in April 1998 resulted in observation of 71 fall/winter/spring dropped white-tailed deer pellet groups while walking a 2-mile long, 3-foot wide belt transect. This would suggest that on the proposed 81-acre game farm, there were approximately 1,227 deer days of use during late fall 1997 through early spring 1998. This would be the equivalence of about 7 white-tailed deer using the area during this time period. Other signs of white-tailed deer in this area included observations of several sets of deer tracks, six rubbed trees from the fall rut, remains of one dead deer, one shed antler, an observation of a marked female white-tailed deer on the project site, and observations of white-tailed deer close to nearby residences. During the site inspection of the newly constructed fence in October 1998, deer tracks were apparent along the outside of the fence.

A few moose use this general area on a year-long basis and some additional moose may move into the Tobie Creek drainage during winter (T. Thier, pers. comm., 1998). Moose pellet groups and tracks have been observed within the area of the proposed game farm (T. Thier, pers. comm., 1998). Some elk may also use the general area of the proposed game farm. However, elk numbers are not great, and the area does not represent significant elk winter range. Conversations with long-term residents in this area would indicate that elk were more abundant prior to subdivision of the land. Generally, recent elk observations are centered around Chinook Lake, Twin Lakes, Bootjack Lake and in Nelson Creek area (C. Sime, pers. comm., 1998b). Mule deer are occasionally sighted in this general area, but are not considered resident or migratory through this area.

This area represents good mountain lion habitat due the combination of an abundance of white-tailed deer, heavy coniferous cover, and rock outcrops. There is a resident mountain lion population and they would be expected to occur in the area on a year-long basis. This area also supports a sizable black bear population. Use of this area by bears will vary seasonally and between years. Bears are expected to reside in this area year-round, with density depending upon forage availability in the vicinity of the proposed game farm site. Local residents reported that they frequently observe lions and bears in this general area.

Bald eagles (federally-listed threatened species) can potentially occur in this area. However, Tobie Creek is not a large enough stream to provide foraging habitat for bald eagles. Peregrine falcons (endangered) are potentially migratory through this area, but they are not known to nest in this area. The gray wolf and grizzly bear are two federally-listed (threatened) wildlife species with some potential to pass through the general game farm area. Wolves have been sighted along the west side of Whitefish Lake.

#### **PROPOSED ACTION:**

- 5(a) The Proposed Action plans to place up to 30 mature bull elk on approximately 81 acres of land. The primary purpose of the proposed game farm is to provide clients an opportunity to shoot trophy bull elk. The elk initially would be placed within the enclosure in May, and all surviving elk would be removed by the end of January or sooner if snow cover begins to restrict travel to the area. The number of bulls shot within the enclosure may exceed 30 as harvested bulls would be replaced with new bulls to maintain at least 15 elk within the enclosure throughout the fall hunting season. Some cows and calves may also be placed within the enclosure, but the total number of elk would not exceed 30 at any given time. Some horses and mules may also be grazed within the game farm enclosure at the same time that elk are present during summer. Grazing by horses and mules would be a cumulative impact to the vegetation and habitat within the enclosure, but cannot be accurately assessed because there is no stipulation on the numbers and length of time they might be grazed in the enclosure.

The proposed game farm site is at the northern portion of the Bowser/Tally white-tailed deer winter range. The proposed game farm site is used by wintering white-tailed deer during average winters or during mild winters with below average snowfall. The proposed game farm site is also within an area used as a migratory corridor by white-tailed deer moving onto and off of the winter range. The enclosure of 81 acres would result in the loss of some wintering habitat for white-tailed deer. However, the loss of this area would not be significant during severe winters because deer become concentrated on the core area of critical habitat about 3 miles south of the proposed game farm site.

The proposed 81-acre game farm site would alter migratory movements of some deer slightly. Although the migratory corridor through this area is narrow (Figure 3), this game farm is small enough that migrating deer would be expected to navigate a route around the enclosure fence. The 81-acre enclosure is also within range of daily movements for white-tailed deer and is not expected to significantly alter daily movements of deer during snow free periods. During periods of snow cover, the enclosure may result in more stress on deer because they are not well adapted to deal with deep snow like elk and moose, and deer become more vulnerable to predation during periods of snow cover.

The proposed game farm would include Tobie Creek, a small perennial stream. This creek within the proposed game farm enclosure is too small to support a significant fisheries, and the stocking density of elk (up to 2.7 acres per elk for 9 months) is not excessive, and would have minimal impact on aquatic resources within the enclosure and immediately downstream from the site.



- 5(b) There is a possibility that wild deer may enter the enclosure especially during periods of drifted snow or deep snow accumulation in the winter. Deer have also been documented to crawl under game proof fencing at sites dug by coyotes. Wild elk do pass through this area on occasion and may be attracted to the game farm especially during the rut. There is a possibility that wild elk could enter the game farm. Wild ungulates entering the game farm and exposed to domestic elk, would likely be destroyed rather than released back to the wild. These impacts may affect individuals but not populations. The existing game farm fence crosses one slope estimated to be 25-30 degrees, but the fence in this area is approximately 10-feet high to reduce the probability of wild or domestic big game animals taking advantage of the topography to jump the fence.

Mountain lions and black bears are expected to pass through and/or reside in this area and may be attracted to the game farm due to the concentration of domestic elk, the presence of elk feed, and/or the presence of gut piles from elk shooting activities. Lions and bears are capable of entering the enclosure and, although live capture and removal are possible, it is not without risks. This may affect individuals but not populations. In addition, gray wolves and grizzly bears could potentially pass through this area and be attracted to the game farm elk. Wolves and bears are capable of digging under or climbing over the game fence. Live capture and removal of a trespassing wolf or bear is possible. However, this is not without risks to the animal, and the loss of a wolf and bear from local populations in this area may be a cumulative impact to these species. In addition, bears that are chronic offenders may be purposely removed from the population either by lethal control, or by live capture and relocation to a zoo.

- 5(c) The containment of up to 30 adult bull elk on 81 acres for up to 9 months is not expected to impact nongame wildlife species.
- 5(d) There would be no introduction of a new species to this area.
- 5(e) The enclosure of 81 acres with 8-foot high big game fencing would alter the daily movement of white-tailed deer living in the immediate area of the proposed game farm during both summer and winter, but the size of the enclosure does not exceed the ability of deer to circumnavigate this obstruction. During periods of snow cover, there would be some increased stress on deer to move around this enclosure. Although the enclosure should not significantly alter the migratory movement of deer through this area, it is documented that the migration corridor is narrow and that deer are traditional in their route selection and would be vulnerable should additional impacts occur in this area.
- 5(f) The proposed game farm is not likely to cause impacts to bald eagles and peregrine falcons. However, the game farm without adequate mitigations could potentially impact gray wolves and grizzly bears. The proposed game farm would provide a concentrated food source for wolves and bears. In addition, bears might also be attracted to feed supplied to domestic elk, and gut piles from elk that are killed in the game farm. Animals can be captured and removed alive, but this is not without risks to the animal. The loss of a wolf and bear from the local populations in this area may be a cumulative impact to these species. In addition, bears that are chronic offenders may be purposely removed from the population either by lethal control, or by live capture and relocation to a zoo.
- 5(g) Construction of the 81-acre enclosure would result in conditions that may slightly increase stress to wildlife species living in this area. Free ranging domestic dogs and wild coyotes are documented to chase deer during the winter on the Bowser/Tally winter range. Dogs, coyotes, lions, and other predators may be able to effectively use the game farm fence as a barrier to aid in capturing deer. During severe winter weather with deep snow cover, deer, moose and elk might face some additional energy demands to circumnavigate the game farm fence. The game farm fence might be a flight hazard to fast pursuit forest raptors in pursuit of small avian prey. Game farm fencing may also be a flight hazard to forest grouse.
- 5(h) There is a significant potential of elk to carry or become infected with a contagious wildlife disease or parasite such as tuberculosis, and then come in contact (through-the-fence, nose-to-nose, nose-to-soil, or ingress/egress) with wild deer, elk, or other wildlife. It is also possible that diseases and parasites

carried by wild elk or deer could be introduced to domestic elk. Ingress of wild elk or deer would likely result in destruction of the trespassing animals if they can be located. Ingress animals may also be able to exit the game farm enclosure. Pathogens, if present, also could be transported by water out of the game farm site via Tobie Creek. Gut piles from elk that are killed in the game farm area, if not promptly removed, could become a significant attractant to wild predators, as well as a potential source of disease transmission.

Spread of a contagious wildlife disease may directly or indirectly (depending upon the nature of the disease) effect the human environment by reducing the number of wild deer and elk available for hunting or exposing hunters to diseases that are contagious to humans as well. Although release of a contagious disease in the wild could severely impact native wildlife populations, the risk of disease transmission from domestic to wild animals is low and can be minimized by routine disease surveillance of the herd and maintenance of a game-proof fence. There also is a potentially significant impact from ingress and egress of game farm animals resulting from the rugged terrain and proximity of trees to the perimeter fence.

#### **NO ACTION:**

No wildlife related impacts are expected to occur under the No Action Alternative. The area likely would continue to be managed by Stoltze Land & Lumber Co. for periodic selective logging. The existing fence enclosure may remain in place for horses and mules.

#### **CUMULATIVE EFFECTS:**

The Salish Mountains and Stillwater River Valley have already been impacted by logging, residential subdivision, and conversion of lowland forests to agricultural land. The fencing of 81 acres to exclude wild deer and elk represents another impact on white-tailed deer habitat. This impact, however, probably would not be a significant cumulative effect. Most land to the west of the game farm site, is Forest Service public land and would not be developed for home sites.

#### **COMMENTS:**

##### **Required Stipulations:**

The following stipulations are imposed by FWP for the Spoklie Tobie Creek game farm and are designed to mitigate significant impacts identified in the EA to below the level of significance:

- (1) *Report ingress of any wild game animals or egress of domestic elk to the Montana FWP immediately. The report must contain the probable reason why or how ingress/egress occurred.*
- (2) *Monitor the game farm perimeter fence on a daily basis and immediately after major snow, rain, and wind events to ensure fence integrity is maintained, especially from tree fall. Monitoring frequency can be reduced to biweekly (every 2 weeks) during periods when domestic elk are not in the game farm enclosure.*
- (3) *Install an offset electrified fence outside the game farm perimeter fence. Research in this area has demonstrated that a three-wire array would be effective in preventing wildlife ingress and protecting the game farm fence from damage by bears or other wildlife attempting to gain access into the enclosure (T. Manley, pers. comm., 1998). The offset electrified fence also should prevent nose-to-nose contact between domestic elk in the enclosure and wildlife outside the fence. Configuration of the three-wire array would be as follows relative to height above ground surface: first hot wire at 6 inches; second hot wire at 24 inches; and third hot wire at 48 inches (the game farm fence would provide the ground for hot wires). The hot wires should be offset from the game farm fence by a distance of at least 30 inches and less than 36 inches, and the charger should have a voltage output of at least 7,000 volts with a stored energy rating of 1.0 Joules or greater (Madel 1996). Operation of the electrified wire must be verified daily when domestic elk are present in the game farm.*



- (4) *Remove elk gut piles from the game farm site within 24 hours of each elk shooting to minimize attracting wildlife.*

The four stipulations listed above are imposed to mitigate potentially significant risk to wildlife posed by the proposed game farm. Risk to wildlife from contact between game farm animals and wild game is potentially significant due to the site being located in an area currently utilized by wild game and predators. Information provided by the stipulations would help both the applicant and FWP to address ingress and egress incidents and to minimize contact between wild and domestic animals. These stipulations, in addition to existing FWP fencing and wildlife protection requirements, are expected to reduce the risk to wildlife to below significant. If fence integrity or ingress/egress becomes a problem, adjustment of fence requirements to include double fencing, additional electrification, or increased height may become necessary.

The following mitigation measure has been included by the game farm applicant as part of the Proposed Action, and is repeated here as a required mitigation/stipulation because of its importance in reducing potentially significant impacts to below the level of significance:

- (5) *Construct a 10-foot high game farm fence along portions of the fence line that cross steep slopes.*

This mitigation measure would reduce the potential risk of ingress/egress from the game farm area. The 10-foot high fence along portions of the fence line would be placed due to steep slopes and potential snow buildup that could reduce the effective height of the fence.

#### **Recommended Mitigation Measures:**

The following game farm management practices would help to minimize impacts to free ranging wildlife species. Implementation of these mitigation measures, most of which are standard practices, is highly recommended and should be considered a form of mitigation.

- Store hay, feed, and salt away from exterior fences or enclosed in bear-resistant containers or buildings.
- Feed game farm animals at interior portions of the enclosure and not along the perimeter fence. Due to the presence of both grizzly and black bears in this area, it is extremely important to limit the exposure of game farm animal feeds to bears.
- Remove excess fecal material and waste feed from the game farm and deposit at an approved site not likely to be used by humans, and domestic and wild animals.

#### **REFERENCES:**

- Dusek, G.L. and J.T. Morgan, 1991. Population Ecology of White-tailed Deer in Northwestern Montana. Job Prog. Rep., MT Fish, Wildlife & Parks, Helena. Fed. Aid Proj. W-100-R-3. 46pp.
- Madel, M.J., 1996. Rocky Mountain Front Grizzly Bear Management Program; Four-Year Progress Report 1991 - 1994. Montana Fish, Wildlife & Parks. July 1996.
- Manley, T., 1998. Personal Communication with Tim Manley, MT Fish, Wildlife & Parks Bear Specialist. November 1998.
- Morgan, J.T., 1993. Population Ecology of White-tailed Deer in Northwestern Montana. PhD. Dissertation, Montana State Univ., Bozeman. 103pp.
- Mundinger, J.G. and S.J. Riley, 1982. Population Ecology and Habitat Relationships of White-tailed Deer in Coniferous Forest Habitat of Northwestern Montana. Pp. 50-66 in Montana Deer Studies. Job Prog. Rep., MT Fish, Wildlife & Parks, Helena. Fed. Aid Proj. W-120-R-13.

**Sime, C., 1996.** Northwestern Montana White-tailed Deer Research. Progress Report, MT Fish, Wildlife & Parks, Helena. Fed. Aid Proj. W-100-R-4. 75pp.

**Sime, C., 1998a.** The Winter of 1996/97: What Did it Mean to Northwest Montana White-tailed Deer Populations? Paper Presented at the 1998 Annual Meeting of the Montana Chapter of The Wildlife Society.

**Sime, C., 1998b.** Personal Communication with Carolyn Sime, MT Fish, Wildlife & Parks biologist. November 1998.

**Thier, T., 1998.** Personal Communication with Tim Thier, MT Fish, Wildlife & Parks biologist. November 1998.



## **HUMAN ENVIRONMENT**

<b>6. <u>NOISE EFFECTS</u></b> <b>Would Proposed Action result in:</b>	<b>POTENTIAL IMPACT</b>				<b>CAN IMPACT BE MITIGATED</b>	<b>COMMENT INDEX</b>
	<b>UNKNOWN</b>	<b>NONE</b>	<b>MINOR</b>	<b>SIGNIFICANT</b>		
a. Increases in existing noise levels?			X		Yes	6(a)
b. Exposure of people to severe or nuisance noise levels?		X				

### **AFFECTED ENVIRONMENT:**

Little noise occurs in the general area of the proposed game farm because of the sparse population and lack of other activities in this area that would generate noise.

### **PROPOSED ACTION:**

- 6(a) Because the game farm fence has already been constructed, the only noise that is expected from the game farm operation would be from shooting. Residences near the proposed game farm area are located approximately 0.5 to 1 mile primarily to the northeast and east (Figure 2); two residences are located less than 0.5 mile from the game farm site, but they are located behind a large ridge that would effectively block most noise from the game farm.

### **NO ACTION:**

No impacts to existing noise levels are expected from the No Action Alternative.

### **CUMULATIVE EFFECTS:**

No additional impacts on noise levels from past, present or reasonably foreseeable activities near the proposed game farm are anticipated.

### **COMMENTS:**

Due to distances to the nearest residences, overall sparse population in the area, and the occurrence of shooting prior to and during the hunting season, it is expected that noise generated from the proposed game farm would not cause a significant problem.

**Required Stipulations:** None

### **Recommended Mitigation Measures:**

If shooting in the game farm results in substantial noise complaints, mitigation could consist of reducing the frequency of shooting and/or modifying the shooting period.

## HUMAN ENVIRONMENT

7. <b>LAND USE</b> Would Proposed Action result in:	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	UNKNOWN	NONE	MINOR	SIGNIFICANT		
a. Alteration of or Interference with the productivity or profitability of the existing land use of an area?		X				
b. Conflict with a designated natural area or area of unusual scientific or educational importance?		X				
c. Conflict with any existing land use whose presence would constrain or potentially prohibit the Proposed Action?		X				
d. Conflict with any existing land use that would be adversely affected by the Proposed Action?			X		Yes	7(d)
e. Adverse effects on or relocation of residences?			X		Yes	7(d)

### AFFECTED ENVIRONMENT:

Most land immediately surrounding the game farm is owned by Stoltze Land & Lumber Co. (Figures 1 and 2). This land currently is not posted and has historically been used by locals who frequent the general area. The northeast and southeast sides of the game farm site are bordered by Flathead National Forest land (Figure 1). The Flathead National Forest extends north, south and west from the Stoltze land. Selective logging has historically been performed on these lands, and the public land is used for recreational purposes, primarily by local residents. Some agriculture occurs in the Stillwater River Valley approximately 2 miles east of the game farm. This sparsely populated area is in the Flathead County Planning jurisdiction and zoned for agriculture and silviculture (N. Wilson, pers. comm., 1998) and is utilized by wild game, especially white-tailed deer.

Residences occur primarily 0.5 to 1 mile northeast and east of the game farm site; one residence exists 0.5 mile to the south (Figure 2). Three homes are located less than 0.5 mile from the site on the east side of a ridge that separates the game farm from these residences (Figure 2). The Bissell School is a small grade school located approximately 1 mile southeast of the game farm site (Figure 2).

### PROPOSED ACTION:

- 7(d) The proposed game farm would be compatible with existing agricultural land uses. Areas east and northeast of the game farm, however, contain residences and a grade school in relatively close proximity (0.5 to 1 mile) to the proposed game farm. With respect to land use, however, no significant conflicts should result between operation of the game farm and the residential or agricultural areas. Additional homes could be constructed north and east of the game farm on private land. Use of the Flathead National Forest land by recreationalists could be affected because of concerns for shooting activities at the game farm (see the following section - *Risk/Health Hazards*). Bissell School activities in the National Forest may be limited to areas away from the game farm site. Potential effects of the game farm on adjacent property values is difficult to evaluate because some nearby property owners may like the idea of a game farm, whereas others would find it undesirable.



**NO ACTION:**

If the proposed game farm is not approved, the site likely would continue to be used for occasional selective logging by Stoltze Land & Lumber Company. It is unknown whether the existing game farm fence would remain for the No Action Alternative.

**CUMULATIVE EFFECTS:**

No cumulative impacts are expected on land use from the proposed game farm project.

**COMMENTS:**

No mitigation measures are recommended.

**REFERENCES:**

Wilson, N., 1998. Personal communication with Ms. Narda Wilson, Flathead Regional Development Office, Kalispell, MT. December 1998.

## HUMAN ENVIRONMENT

8. <b>RISK/HEALTH HAZARDS</b> Would Proposed Action result in:	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	UNKNOWN	NONE	MINOR	SIGNIFICANT		
a. Risk of dispersal of hazardous substances (including, but not limited to chemicals, pathogens, or radiation) in the event of an accident or other forms of disruption?			X		Yes	8(a)
b. Creation of any hazard or potential hazard to domestic livestock?			X		Yes	8(b)
c. Creation of any hazard or potential hazard to human health?				X	Yes	8(c)

### PROPOSED ACTION:

- 8(a) There is a potential of domestic elk to carry or become infected with a contagious wildlife disease or parasite such as tuberculosis, and then coming in contact (through-the-fence, nose-to-nose, nose-to-soil, or ingress/egress) with wild deer, elk, or other wildlife. The release of a contagious disease in the wild could severely impact native wildlife populations since white-tailed deer disperse widely through the Salish Mountains during summer. The risk of such an event happening is reduced somewhat by the removal of all game farm elk during the winter when deer are concentrated in this area. It is also possible that diseases and parasites carried by wild elk or deer could be introduced to the domestic elk with equally severe impacts. Ingress of wild elk or deer would likely result in the destruction of the trespassing animals. Spread of a contagious wildlife disease may directly or indirectly (depending on the nature of the disease) affect the human environment by reducing the number of wild deer and elk available for hunting or exposing hunters to diseases that are contagious to humans as well. There is a potential for pathogens, if present, to be transported in Tobie Creek downstream from the game farm; however, this is expected to be a minor risk due to disease testing requirements of game farm animals and the relatively low density of animals that would be in the enclosure for only a portion of each year.
- 8(b) Two Montana regulatory diseases – brucellosis and tuberculosis – are potentially transmittable from elk to cattle and horses, and from cattle and horses to domestic elk. Horses will be grazed within the game farm enclosure in association with the elk and represents an opportunity for disease transmission from elk to domestic livestock. In addition, the horses and mules may be removed from the enclosure and intermingled with other domestic livestock. Chronic wasting disease (CWD) also has been detected in game farm elk, but the mode of transmission is unknown and there is no test for this disease in living animals.

The risk of disease being passed from domestic elk to domestic livestock would be minimal if the fence integrity is maintained and appropriate mitigation measures (see Section 5 - *Fish/Wildlife*) are followed. Potential for disease transmission to domestic livestock and wildlife from game farm animals is also mitigated through DoL disease testing requirements. All animals to be placed on this game farm are required to be tested for tuberculosis at the time of import, purchase and/or transportation to the game farm. A test for brucellosis is required for all game farm animals that are sold or moved within the state, and is required for all game farm animals imported into Montana. Each game farm is required to have access to an isolation pen (quarantine facility) on the game farm or approved quarantine plan to isolate any animals that are imported or become ill. The state veterinarian can require additional testing and place herds under strict quarantine should problems arise.



- 8(c) If tuberculosis or brucellosis were to be transmitted from domestic elk to wild elk and deer, hunters field dressing wild elk and deer would be subject to some risk of infection. Veterinarians and meat cutters working with diseased game farm animals are at risk of becoming infected with brucellosis or tuberculosis. Risk to human health from diseased animals could be significant, but routine brucellosis and tuberculosis testing requirements for game farm animals offer a measure of surveillance that minimizes the risk. Failure to comply with these requirements is grounds for license revocation. Pathogens that could be transported by Tobie Creek from the game farm are expected to be a minor risk for reasons mentioned above in 8(a) and because surface water probably is not used directly for human consumption without some form of treatment or boiling.

As mentioned above in the *Land Use* section, several residences are located approximately 0.5 to 1 mile from the game farm site, primarily to the northeast and east (Figure 2). In addition, a small grade school (Bissell School) is located about 1 mile southeast of the game farm site (Figure 2). This school and the residences are within average maximum ranges of high-powered big game rifles. These distances generally are in the range of 1.5 to 3 miles or more; however, numerous variables must be considered to determine actual lethal potential of a rifle bullet at distance (Montana Fish, Wildlife & Parks, 1996; North American Hunting Club and Wildlife Forever, 1996).

The residences located south and east of the game farm, including Bissell School, are separated from the game farm site by one or more mountain ridges that should be effective in blocking bullets that are directed at elk in the game farm. Some of the residences located northeast of the game farm in Section 1 (T30N, R23W) are not necessarily blocked from the game farm by ridges with respect to shooting that could occur in the northern third of the game farm area. The presence of moderate tree density throughout the game farm and surrounding areas would provide additional protection for bullets used in the game farm area.

Accessible public land (Flathead National Forest) is located near the game farm, primarily to the north, south and west (Figures 1 and 2). This National Forest land is adjacent to portions of the east side of the game farm site; however, a locked gate prevents vehicle access to this area (Figure 2). The Stovepipe Canyon USFS Road extends along west side of the game farm at a lateral distance of from about 700 to 1,500 feet (Figure 2). The Farm to Market Road extends north-south at a distance of about 1 mile east of the game farm (Figure 2). Mountain ridges, slopes, and tree cover provide protection to the general public that may be present in these areas. The most exposed public areas near the game farm probably are the National Forest lands directly south/southeast of the game farm site (Figure 2).

#### **NO ACTION:**

Risk/health hazards would not occur from the No Action Alternative, other than those that may be associated with the existing land use, including normal shooting activities associated with the hunting season.

#### **CUMULATIVE EFFECTS:**

Normal hunting activities occur in the mountainous areas (public and private) surrounding the game farm site; however, the additional shooting that would occur in the 81-acre game farm is not expected to result in significant cumulative impacts with respect to human health and risk.

## COMMENTS:

### Required Stipulations:

- (1) *Shooting in the game farm enclosure using high-powered rifles must not occur in the direction of residences that are located northeast of the game farm; this restriction is limited to the northern third of the game farm area due to limited protection by topographic ridges. A guide must accompany each harvester to be sure that shooting does not occur toward the residences described above. Signs shall be placed on the outside upper portion of the game farm perimeter fence spaced 100 feet apart that warn of shooting activities inside the fence area.*
- (2) *Shooting of domestic elk in the game farm using high-powered rifles is limited to the period of September through December.*

These two stipulations are imposed to mitigate a potentially significant risk to public health and safety due to the proximity of residences to the game farm site. Limiting high-powered rifles to a 4-month period coincident with the general public hunting season in Montana provides for an awareness of shooting that already exists during the hunting season (i.e., one-third of each year). The requirement to have a guide with each elk harvester to assure that shooting does not occur in a direction toward the residences not protected by topographic ridges would reduce the chances of impacting human health and safety (trees also provide protection from stray bullets). Posting signs on the outside of the perimeter fence will warn persons who may encounter the fence of shooting activities in the area.

### Recommended Mitigation Measures:

The mitigation measures recommended in Section 5 (*Fish/Wildlife*) are applicable to this section. In addition, risk of disease epidemic or heavy parasite infections among domestic elk can be minimized by maintaining a reasonable domestic elk stocking rate in relation to the enclosure size, periodic removal of manure from concentration areas, and development of a disease immunization and parasite treatment protocol as applicable to domestic elk.

## REFERENCES:

Montana Fish, Wildlife & Parks, 1996. Hunter Education, Gun Safety, Hunter Responsibility. Falcon Press, Helena and Billings, MT.

North American Hunting Club and Wildlife Forever, 1996. Third National Shooting Range Symposium, June 23-25, 1996, Orlando, Florida. Proceedings.



## HUMAN ENVIRONMENT

9. <u>COMMUNITY IMPACT</u> Would Proposed Action result in:	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	UNKNOWN	NONE	MINOR	SIGNIFICANT		
a. Alteration of the location, distribution, density, or growth rate of the human population of an area?		X				
b. Alteration of the social structure of a community?		X				
c. Alteration of the level or distribution of employment or community or personal income?			X		NA	9(c)
d. Changes in industrial or commercial activity?		X				
e. Changes in historic or traditional recreational use of an area?			X		No	9(e)
f. Changes in existing public benefits provided by affected wildlife populations and wildlife habitats (educational, cultural or historic)?			X		No	9(e)
g. Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods?		X				

### AFFECTED ENVIRONMENT:

The proposed game farm is located in Flathead County, approximately 6 miles west of the town of Whitefish. Since lodging for clients using the services of the game farm is not available on site, clients most likely would seek lodging in Whitefish or Kalispell. The number of clients expected on an annual basis at the game farm is not expected to have a noticeable affect on the community.

At least one seasonal employee would be hired to be an on-site caretaker for the proposed game farm. In addition to this employee, Spoklie family members would work for the game farm operation.

Local residents in the vicinity of the game farm appreciate their space and outdoor recreational activities that the natural environment and its resources provide, such as hunting, fishing, hiking, skiing, snowmobiling, photographing, picnicking, wood gathering, and wildlife and landscape viewing. The land owned by Stoltze Land & Lumber Co. in and immediately surrounding the game farm site, and Flathead National Forest land in the area, are used by the public (primarily nearby residents) for various recreational purposes.

### PROPOSED ACTION:

9(c) Operation of the proposed game farm would provide employment for at least one seasonal workers. Local businesses providing goods and services (such as motels, vehicle rental dealers, grocery stores, restaurants, meatcutters, and taxidermists) would benefit the most as a result of increased spending due to operation of the game farm and spending by clients using the services of the game farm. No impacts to the local infrastructure would occur under the Proposed Action.

9(e) Some local residents feel that licensing the game farm operation would decrease their quality of life. Safety, due to the increased amount of rifle shooting on the game farm, appears to be one of the most important issues. Some neighbors also are concerned about the increase in human activity that would occur from operation of the game farm. Recreational use of the area surrounding the game farm may decline as people become reluctant to use this area due to concerns for shooting safety or for other reasons. Outside educational activities of Bissell School students may not occur near the game farm site. Shooting game farm elk is perceived by some people in Montana as contrary to proper ethics and the

concept of "fair chase". Neighbors harboring negative feelings about the game farm operation would perceive a loss in their sense of social well-being.

#### **NO ACTION:**

Although there would be no game farm with the No Action Alternative, some social impacts have already occurred through the permitting process. The potential of approving the game farm has fractionalized some segments of the community based upon their support or opposition to the game farm. Denial of the game farm operation would be welcomed by those opposed to it and, as a result, they may consider the quality of their lives were preserved, including historic recreational uses of the area. Ill feelings, however, may be harbored by people who favor the game farm, which, in turn, may increase the social distance between individuals or groups opposing and favoring the game farm. Curtailment of recreational use on Stoltze Land & Lumber Co. would depend on whether the company would continue to allow public use of its property.

#### **CUMULATIVE EFFECTS:**

No cumulative impacts are anticipated on communities from operation of the proposed game farm.

#### **COMMENTS:**

No mitigation measures are recommended.



## **HUMAN ENVIRONMENT**

10. <b><u>PUBLIC SERVICES &amp; TAXES</u></b>	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	Would Proposed Action result in:	UNKNOWN	NONE	MINOR	SIGNIFICANT	
a.	A need for new or altered government services (specifically an increased regulatory role for FWP and Dept. of Livestock)?			X		NA
b.	A change in the local or state tax base and revenues?			X		NA
c.	A need for new facilities or substantial alterations of any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications?		X			

### **AFFECTED ENVIRONMENT:**

Stoltze Land & Lumber Co. currently pays property taxes for the land which is leased to Mr. Spoklie for the game farm site. The land in which the game farm is proposed currently is classified for agriculture and silviculture which has a low appraisal value.

### **PROPOSED ACTION:**

- 10(a) Approval of the game farm would increase time and expenses spent by FWP and DoL personnel inspecting, monitoring, and responding to complaints about operation of the game farm or egress/ingress problems. Since neither FWP or DoL has the option of hiring additional employees to handle the increased workload that could potentially be created by the game farm, activities of the current staff would need to be re-prioritized to meet the increased demand created by the game farm operation.
- 10(b) Placement of elk in the game farm would increase the annual tax contribution, with collected taxes going toward the county general fund and local school district. For 30 elk, annual taxes would total approximately \$250 to \$750, depending on the number, age, and sex of the elk. If all of the domestic elk are absent from the enclosure by the end of December or January as proposed, it is possible that these taxes may not be collected because the animals usually are assessed in January or February of each year. Income to Stoltze Land & Lumber Co. probably would increase (compared to current condition) for the land leased to Mr. Spoklie for the game farm.

### **NO ACTION:**

Under the No Action Alternative, FWP and DoL would not have to inspect and monitor this game farm. The current status of tax payments for this property would remain for the No Action Alternative.

### **CUMULATIVE EFFECTS:**

No cumulative impacts are expected on public services and taxes from the proposed game farm project.

### **COMMENTS:**

No mitigation measures are recommended.

## HUMAN ENVIRONMENT

11. <b>AESTHETICS/RECREATION</b> Would Proposed Action result in:	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	UNKNOWN	NONE	MINOR	SIGNIFICANT		
a. Alteration of any scenic vista or creation of an aesthetically offensive site or effect that is open to public view?			X		No	11(a)
b. Alteration of the aesthetic character of a community or neighborhood?			X		No	11(a)
c. Alteration of the quality or quantity of recreational/tourism opportunities and settings?			X		No	11(c)

### AFFECTED ENVIRONMENT:

The game farm site is located adjacent to and near Flathead National Forest lands (Figures 1 and 2). These public areas offer access to outdoor activities such as hiking, fishing, skiing, camping, picnicking, hunting, photographing, and wildlife viewing. General access to these areas is from private land or from USFS roads, namely the Stovepipe Canyon Road (Figure 2). A locked gate on the USFS road southeast of the game farm site (Figure 2) prevents vehicle access to public land in east and southeast of the game farm site.

### PROPOSED ACTION:

- 11(a) The visual character of the area may change as a result of the 8-foot high fence that has been constructed around the perimeter of the game farm. This impact would probably be most directed at persons residing and/or recreating in the game farm area. The impact is expected to be minor and most likely short term since fences are a common sight in the area and the general vicinity has a moderate tree density with topographic ridges that blocks the fence from most surrounding areas.
- 11(c) The quality or quantity of recreation probably will decrease in proximity to the game farm enclosure because of the safety concern from shooting operations. This alteration is expected to occur primarily from local residents that frequent public land surrounding the game farm site. In addition, field trips to the National Forest by local school students probably would occur in areas farther from the game farm site.

### NO ACTION:

No adverse impacts to aesthetics or recreation are expected under the No Action Alternative, unless the game farm fence remains in place.

### CUMULATIVE EFFECTS:

No cumulative impacts are expected.

### COMMENTS:

No mitigation measures are recommended.



## **HUMAN ENVIRONMENT**

<b>12. <u>CULTURAL &amp; HISTORICAL RESOURCES</u></b> Would Proposed Action result in:	<b>POTENTIAL IMPACT</b>				<b>CAN IMPACT BE MITIGATED</b>	<b>COMMENT INDEX</b>
	<b>UNKNOWN</b>	<b>NONE</b>	<b>MINOR</b>	<b>SIGNIFICANT</b>		
a. Destruction or alteration of any site, structure or object of prehistoric, historic, or paleontological importance?	X				Yes	12(a)
b. Physical change that would affect unique cultural values?		X				
c. Effects on existing religious or sacred uses of a site or area?		X				

### **AFFECTED ENVIRONMENT:**

A file search was conducted by the State Historic Preservation Office (SHPO) for the proposed project area. Results of this search show that there are no previously recorded historic or archaeological sites within the project area (SHPO 1998). The absence of cultural properties in the area does not mean that they do not exist, but rather may reflect the lack of any previous cultural resource inventory in the area.

### **PROPOSED ACTION:**

- 12(a) According to SHPO (1998), there is a possibility that unknown or unrecorded cultural properties may be present at the game farm site. SHPO recommends that a reconnaissance survey be conducted prior to project initiation to determine if sites exist and if they would be impacted by the Proposed Action.

### **NO ACTION:**

No impacts to cultural resources are expected from the No Action Alternative unless other disturbances occur within the property.

### **CUMULATIVE EFFECTS:**

No additional impacts from past, present and reasonably foreseeable activities near the proposed game farm are anticipated.

### **COMMENTS:**

**Required Stipulations:** None.

### **Recommended Mitigation Measures:**

If archeological artifacts are observed during construction of the game farm fence or from other activities, work should stop in the area and the discovery reported to:

Montana Historical Society; Historic Preservation Office  
1410 8th Avenue; P.O. Box 201202; Helena, Montana 59620  
phone (406) 444-7715

If work stoppage in the area containing observed artifacts is not possible, record the location and position of each object, take photographs, and preserve the artifact(s).

#### **REFERENCES:**

**Montana State Historic Preservation Office (SHPO), 1998.** Letter from Philip Melton (SHPO, Helena, MT) to Daphne Digrindakis (Maxim Technologies, Inc.), dated April 10, 1998.



## SUMMARY

13. SUMMARY Would the Proposed Action, considered as a whole:	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	UNKNOWN	NONE	MINOR	SIGNIFICANT		
a. Have impacts that are individually limited, but cumulatively considerable? (A project or program may result in impacts on two or more separate resources which create a significant effect when considered together or in total)		X				
b. Involve potential risks or adverse effects which are uncertain but extremely hazardous if they were to occur?			X		Yes	13(b)
c. Potentially conflict with the substantive requirements or any local, state, or federal law, regulation, standard or formal plan?		X				
d. Establish a precedent or likelihood that future actions with significant environmental impacts would be proposed?	X					13(d)
e. Generate substantial debate or controversy about the nature of the impacts that would be created?			X		Yes	13(d)

### PROPOSED ACTION:

13(b) There is a potential of domestic elk carrying or becoming infected with a contagious wildlife disease or parasite such as tuberculosis, chronic wasting disease, or meningeal worm and then coming in contact (through-the-fence, nose-to-nose, nose-to-soil, or ingress/egress) with wild deer, elk, or other wildlife. Release of a contagious disease in the wild could severely impact native wildlife populations. It is also possible that disease and parasites carried by wild elk could be introduced to domestic elk. Spread of a contagious wildlife disease may directly or indirectly (depending on the nature of the disease) affect the human environment by reducing the number of wild deer and elk available for hunting, or exposing hunters to diseases that are contagious to humans as well.

13(d) The nature of impacts to wildlife from elk game farms is currently under debate in Montana and other states. The following issues are of the greatest concern with respect to game farms:

- Disease transmission from game farm elk to wildlife is possible if the game farm elk are diseased and have an opportunity to come into contact with wild elk or deer.
- Hybridization of Montana's game species resulting from the ingress/egress of animals.
- Potential for wild animals to ingress into the game farm. Ingressing elk and deer are generally killed, typically by FWP wardens, to prevent potential disease transmittal. Ingressing mountain lions and black bears may be immobilized and removed.
  - Theft of wild animals for financial gain on game farms.
  - Ethics of shooting domestic elk, deer, or other animals in a game farm enclosure.
  - Public safety from shooting operations.

Some of these issues are particularly controversial when game farms block migration routes or consume significant areas of land historically utilized by wild game. Inadequate perimeter fencing and fence monitoring by the game farm operator can also lead to ingress/egress events and nose-to-nose contact between wild game and game farm animals. Because the proposed Spoklie Tobie Creek game farm area would not significantly block big game migration routes or consume a significant portion of land utilized by wild game, the controversial nature of the Proposed Action is minor.

## SUMMARY EVALUATION OF SIGNIFICANCE CRITERIA

- a. **Does the Proposed Action have impacts that are individually minor, but cumulatively considerable? (A project may result in impacts on two or more separate resources which create a significant effect when considered together or in total.)**

No, however, any action resulting in the loss of a trespassing gray wolf or grizzly bear might represent a cumulative impact to the local populations, assuming other man-caused mortalities occur in the area.

- b. **Does the Proposed Action involve potential risks or adverse effects which are uncertain but extremely hazardous if they were to occur?**

Yes. An unlikely, but extremely hazardous event should it occur, would be the spread of a disease or parasite from domestic elk to wild elk or deer. The risk of this event occurring can be reduced by following the mitigation measures listed in Sections 5 (*Fish/Wildlife*) and Section 8 (*Risk/Health Hazards*) of this EA.

The recent confirmation of CWD in several game farms in other states and Saskatchewan raises concerns about the potential movement of infected animals and the difficulty in diagnosing the disease in living animals. The fact that the proposed game farm is for "put and take" shooting reduces the chances that CWD could be spread to wild animals; however, the method of transmission to animals is unknown at this time. There is some possibility that the disease may be transmitted through contact with land where infected animals have pastured.

On November 11, 1998, the Governor's office and DoL issued an emergency rule that requires any animal brought into Montana from another state must have resided for at least 12 months on the "game farm of origin" which should allow closer monitoring and tracking of the animal and the potential for disease. In addition, the rule requires the animals to have undergone chronic wasting disease surveillance and testing. In Montana, the rule calls for herd surveillance, testing, and scientific review and quarantines, when necessary.

- c. **Description and analysis of reasonable alternatives (including the no action alternative) to the proposed action whenever alternatives are reasonably available and prudent to consider and a discussion of how the alternatives would be implemented:**

No Action Alternative: The No Action Alternative would avoid many of the potential impacts listed above. This site would likely be used for selective timber harvesting. The No Action Alternative would probably not result in exclusion of wildlife from this site.

- d. **Evaluation and listing of mitigation, stipulation, or other control measures enforceable by the agency or another government agency:**

This section provides an analysis of impacts to private property by proposed restrictions or stipulations in this EA as required under 75-1-201, MCA, and the Private Property Assessment Act, Chapter 462, Laws of Montana (1995). The analysis provided in this EA is conducted in accordance with implementation guidance issued by the Montana Legislative Services Division (EQC 1996). A completed checklist designed to assist state agencies in identifying and evaluating proposed agency actions, such as imposed stipulations, that may result in the taking or damaging of private property, is included in Appendix A. Mitigation measures described in this section address both minor and significant impacts. FWP would require stipulations to mitigate all potentially significant impacts from the Proposed Action. Most potential minor impacts from the Proposed Action are addressed as mitigation measures that are strongly recommended, but not required.



## **REQUIRED STIPULATION #1 AND #2**

- (1) Report ingress of any wild game animals or egress of domestic elk to the Montana FWP immediately. The report must contain the probable reason why or how ingress/egress occurred.*
- (2) Monitor the game farm perimeter fence on a daily basis and immediately after major snow, rain, and wind events to ensure fence integrity is maintained, especially from tree fall. Monitoring frequency can be reduced to biweekly (every 2 weeks) during periods when domestic elk are not in the game farm enclosure.*

### **Restriction on Private Property Use**

These stipulations do not restrict the use of private property by effectively requiring that the proposed game farm be monitored at least once daily for ingress or egress events. The stipulation is consonant with the current FWP requirement to report egress events immediately [ARM 12.6.1517(2)].

### **Alternatives**

*Do not report ingress and egress events to FWP immediately, and do not monitor the fence on a daily basis.*

This alternative would not adequately address the increased risk to wildlife from operation of the game farm. Ingressing wild animals must be detected and reported immediately to prevent contact with wild game after contact with game farm animals. The fence should be inspected daily to adequately monitor for potential problems with fence integrity, especially because of tree density near the perimeter fence.

### **Benefits from Imposing the Stipulation**

These stipulations are imposed to mitigate predicted risk to wildlife posed by the proposed game farm. Information provided by the stipulations would help the applicant and FWP to address ingress and egress incidents and to minimize contact between wild and domestic animals. These stipulations, in addition to existing FWP fencing and wildlife protection requirements, would effectively reduce the risk to wildlife.

### **Types of Expenditures the Stipulation Would Require**

The stipulation to require immediate notice of ingress and egress events would not impose any additional expenditures beyond those necessary to report egress events in accordance with ARM 12.6.1517(2). Monitoring of the game farm fence on a daily basis can easily occur during the period when domestic elk are in the enclosure because a caretaker will be present on-site. During the period that elk are not in the game farm enclosure, the licensee would need to travel to the site from his residence south of Kalispell to monitor the fence condition at least once every 2 weeks.

### **Stipulation's Effect on Property Values**

None.

## **REQUIRED STIPULATION #3**

- (3) Install an offset electrified fence outside the game farm perimeter fence. Research in this area has demonstrated that a three-wire array would be effective in preventing wildlife ingress and protecting the game farm fence from damage by bears or other wildlife attempting to gain access into the enclosure. The offset electrified fence also should prevent nose-to-nose contact between domestic elk in the enclosure and wildlife outside the fence. Configuration of the three-wire array would be as follows relative to height above ground surface: first hot wire at 6 inches; second hot wire at 24 inches; and third hot wire at 48 inches (the game farm fence would provide the ground for hot wires). The hot wires should be offset from the game farm fence by a distance of at least 30 inches and less than 36 inches, and the charger should have a voltage output of at least 7,000 volts with a stored energy rating of 1.0 Joules or greater. Operation of the electrified wire must be verified daily when domestic elk are present in the game farm.*

### **Restriction of Private Property Use**

This stipulation does not provide for any additional restrictions on private property use.

### **Alternatives**

*Do not construct an electrified fence on the outside of the game farm perimeter fence.*

This alternative would not adequately address the potentially significant risk from ingress of wildlife, including bear, wolf, lion, and deer.

### **Benefits from Imposing the Stipulation**

This stipulation is imposed to mitigate potentially significant risk to wildlife posed by the proposed game farm and the potential for ingress; the electrified fence would provide a safety measure to reduce the ingress potential.

### **Types of Expenditures the Stipulation Would Require**

The stipulation would require approximately \$800-\$1,000 in equipment and materials (wire, insulators, charger), plus labor to install the wire.

### **Stipulation's Effect on Property Values**

None.

### **REQUIRED STIPULATION #4**

*(4) Remove elk gut piles from the game farm site within 24 hours of each elk shooting to minimize attracting wildlife.*

### **Restriction on Private Property Use**

This stipulation does not provide for any restrictions on private property use.

### **Alternatives**

*Do not require removal of elk gut piles from the game farm site.*

This alternative would not adequately address the significant potential for predators (i.e., bear, lion, wolf) to enter the game farm as a result of the attraction from elk gut piles that may remain in the enclosure.

### **Benefits from Imposing the Stipulation**

This stipulation is imposed to mitigate potentially significant risk to wildlife posed by a significant potential of ingress as a result of the gut pile attractant.

### **Types of Expenditures the Stipulation Would Require**

Costs associated with removing gut piles from the game farm on a periodic basis are expected to be low assuming that the distance to an acceptable disposal site is not significant, and that someone associated with the game farm would be making periodic trips to and from the game farm anyway.

### **Stipulation's Effect on Property Values**

None.



## **REQUIRED STIPULATION #5**

*(5) Shooting in the game farm enclosure using high-powered rifles must not occur in the direction of residences that are located northeast of the game farm; this restriction is limited to the northern third of the game farm area due to limited protection by topographic ridges. A guide must accompany each shooter to be sure that shooting does not occur toward the residences described above. Signs shall be placed on the outside upper portion of the game farm perimeter fence spaced 100 feet apart that warn of shooting activities inside the fence area.*

### **Restriction on Private Property Use**

This stipulation does not provide for any additional restrictions on private property use.

### **Alternatives**

*Do not restrict the direction of shooting and allow unsupervised shooting; do not require warning signs on the fence.*

This alternative would not adequately address the increased risk to public health and safety due to the proximity of residences to the game farm.

### **Benefits from Imposing the Stipulation**

This stipulation is imposed to mitigate potentially significant impacts to public health and safety from shooting operations at the proposed game farm.

### **Types of Expenditures the Stipulation Would Require**

The stipulation would not require any additional expenditures at the game farm, assuming the guide that would accompany each shooter would be the caretaker that would already be present at the site, or would be one of the Spoklie family members. The cost of warning signs for the fence are expected to be minimal.

### **Stipulation's Effect on Property Values**

None.

## **REQUIRED STIPULATION #6**

*(6) Shooting of domestic elk in the game farm using high-powered rifles is limited to the period of September through December.*

### **Restriction on Private Property Use**

This stipulation would restrict the period in which high-powered rifles could be used in the game farm, and restrict the type of weapon that could be used to harvest the game farm animals outside of the designated 4-month period.

### **Alternatives**

*Do not restrict the period for high-powered rifle use in the game farm and do not restrict the type of weapon that could be used to harvest elk outside of the designated 4-month period.*

This alternative would not adequately address the potential risk to human health and safety as a result of the proximity of residences to the game farm site, and general public use of land in the area.

### **Benefits from Imposing the Stipulation**

This stipulation would reduce a potentially significant risk to public health and safety due to the proximity of residences to the game farm, and general public use of land in the area.

### **Types of Expenditures the Stipulation Would Require**

The stipulation would not require any additional expenses, assuming the shooters would have access to other weapons outside of the September through December period, and assuming that shooters of game farm elk would be willing to harvest game farm elk outside of the 4-month period using weapons other than high-powered rifles.

### **Stipulation's Effect on Property Values**

None.

### **REQUIRED STIPULATION #7**

The following mitigation measure has been included by the game farm applicant as part of the Proposed Action, and is repeated here as a required mitigation/stipulation because of its importance in reducing potentially significant impacts to below the level of significance:

*(7) Construct a 10-foot high game farm fence along portions of the fence line that cross steep slopes.*

This mitigation measure would reduce the potential risk of ingress/egress from the game farm area. The 10-foot high fence along portions of the fence line would be placed due to steep slopes and potential snow buildup that could reduce the effective height of the fence.

### **Restriction on Private Property Use**

This stipulation does not provide for any additional restrictions on private property use.

### **Alternatives**

Do not extend the height of the fence to 10 feet on steep slopes and snow build up.

This alternative would not adequately address the increased risk of ingress/egress.

### **Benefits from Imposing the Stipulation**

This stipulation is imposed to mitigate potentially significant impacts of ingress/egress or transmission of disease.

### **Types of Expenditures the Stipulation Would Require**

The stipulation would require minor additional expenditures at the game farm for additional fence construction. The additional cost is expected to be low with respect to the cost of the entire fence.

### **Stipulation's Effect on Property Values**

None.



## **PART III. NARRATIVE EVALUATION AND COMMENT**

**Wildlife use of the area and potential for through-the-fence contact with game farm animals (consider year-around use, traditional seasonal habitat use, and location of travel routes and migration corridors).**

**Through the fence contact:** The proposed game farm is located in moderate to high density white-tailed deer habitat. Wild elk and moose on occasion may pass through this area and they might be attracted to the game farm by domestic elk. Nose-to-nose contact is most likely to occur between wild and domestic elk. Transmission of disease or parasites may occur during nose-to-nose contact, nose-to-body contact, and by contacting vegetation and feces along the fence line. Disease transmission may occur from wild ungulates to domestic elk and from domestic elk to wild ungulates. Diseases such as tuberculosis are highly contagious and can be easily transmitted between domestic and wild big game species. Tuberculosis can also be transmitted to humans and is a serious health risk.

Chronic Wasting Disease (CWD) has been documented in several states, and Montana now has two suspect herds; however, there is no evidence that CWD is present in wild deer or elk. There is no diagnostic test for CWD in live animals and confirmation of the disease can only be made upon post mortem necropsy. CWD disease is believed to be confined to Cervids and has not been documented in Bovids.

Although a small stream, Tobie Creek does flow through the 81-acre game farm enclosure and represents a continual vector for the spread of possible disease organisms and parasites out of the enclosure. However, risk of disease transmission can be reduced by maintaining the integrity of the enclosure fence, maintaining a healthy domestic elk population, and following mitigation recommendations in this EA. If the game farm is managed properly, risk of disease transmission from domestic elk to wild ungulates would likely be minimal.

**Potential for escape of game farm animals or ingress of wildlife (consider site-specific factors that could reduce the effectiveness of perimeter fences built to standards outlined in Rule 12.6.1503A, including steepness of terrain, winter snow depths/drifting, susceptibility of fences to flood damage, etc.).**

**Fence integrity:** The existing game farm fence consists of 8-foot high, 6-inch mesh, high-tensile big game fencing; supported by 11-foot long, 2 3/8-inch diameter steel pipe set 3 feet into the soil and spaced at approximately 20-foot intervals; some posts are wooden in areas of wet ground conditions. Fence corners and braces would be constructed of 2 7/8-inch steel pipe. The gates have a double latch and single chain lock.

The game farm is located on moderate to steep terrain. The fence perpendicularly crosses one slope of 25-30 degrees and the fence height has been raised an additional 2 feet in areas of relatively steep slopes. Other slopes crossed by the fence are less than 15 degrees. Soil in low-lying areas tends to be hummocky and there is a problem with maintaining close fence contact with ground. Additional fencing or logs are used to fill these gaps. Overall, the site potential for fencing this pasture is moderate. Trees along the game farm perimeter have been removed from about a 20-foot wide path, and game farm fence is located within this corridor. Although many of the larger trees were removed during the logging operation, hazard trees still remain within relatively close distance of the fence. Therefore, there is a risk of the fence being compressed by a falling tree.

The enclosure site is located at an elevation of 3,200 to 3,600 feet within a high snowfall, mountainous area. The expected snow levels during winter will vary greatly in relation to the amount of snowfall, and wind velocity and direction associated with storms passing through this area. This area has the potential to receive considerable snowfall in single storm events and cumulatively during the winter. Two to three feet of compacted snow on the ground can be expected in at least some winters. The proposed game farm is located within forested habitat and the potential for drifting is low. All elk will be removed from the enclosure prior to significant snow accumulation or by the end of January each year. However, there will be potential for deer to enter the enclosure during winters of excessive snow fall, and these deer would need to be removed from the enclosure prior to putting elk back in the following spring.

This area supports resident populations of mountain lions and black bears, and also has potential for transient gray wolves and grizzly bears. Lions and bears have been documented to enter game farms and it is important to deter their potential for entry.

**Proportion (%) of the total habitat area currently used by wildlife that will be enclosed or otherwise impacted.**

The enclosure would exclude resident white-tailed deer from 81 acres of year-long habitat and winter range. This low elevation forest habitat at the game farm site is widely available to deer in other nearby areas. The game farm represents only 1 to 2 percent of this habitat in the vicinity of the local deer winter range.

## **PART IV. EA CONCLUSION**

**1. Based on the significance criteria evaluated in this EA, is an EIS required? YES / NO**

No. The appropriate level of analysis for the Proposed Action is a mitigated EA because:

- all impacts of the Proposed Action have been accurately identified in the EA; and
- all identified significant impacts would be mitigated to minor or none.

**2. Describe the level of public involvement for this project if any and, given the complexity and the seriousness of the environmental issues associated with the Proposed Action, is the level of public involvement appropriate under the circumstances?**

Upon completion of the Draft EA, a notice is sent to adjoining landowners, local newspapers, and other potentially affected interests, explaining the project and asking for input during a 28-day comment period which extends from December 22, 1998 until 5 pm January 19, 1999. A Public Meeting will be held Thursday, January 7, 1999, 7:00 pm, at the Grouse Mountain Lodge in Whitefish, Montana. The Draft EA is also available to the public from the FWP office in Kalispell at the address and phone listed below and in the *Summary* section of this EA (p. 2), and through the State Bulletin Board System during the public comment period.

**3. Duration of comment period if any: 28 days**

**4. Name, title, address and phone number of the Person(s) Responsible for Preparing the EA:**

**Fish, Wildlife & Parks**

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Karen Zackheim, FWP Game Farm Coordinator  
Enforcement Division  
1420 E. Sixth Avenue  
Helena, MT 59620

**Maxim Technologies, Inc.**

Daphne Digrindakis, Project Manager  
Doug Rogness, Hydrologist  
Mike Cormier, Soil Scientist  
James Colegrove, GIS and Graphics

**FaunaWest Wildlife Consultants**

Craig Knowles, Wildlife Biologist

**Other**

Candace Durran, Vegetation Specialist



# APPENDIX A

## PRIVATE PROPERTY ASSESSMENT ACT CHECKLIST

The 54th Legislature enacted the Private Property Assessment Act, Chapter 462, Laws of Montana (1995). The intent of the legislation is to establish an orderly and consistent process by which state agencies evaluate their proposed actions under the "Takings Clauses" of the United States and Montana Constitutions. The Takings Clause of the Fifth Amendment of the United States Constitution provides: "nor shall private property be taken for public use, without just compensation." Similarly, Article II, Section 29 of the Montana Constitution provides: "Private property shall not be taken or damaged for public use without just compensation..."

The Private Property Assessment Act applies to proposed agency actions pertaining to land or water management or to some other environmental matter that, if adopted and enforced without compensation, would constitute a deprivation of private property in violation of the United States or Montana Constitutions.

The Montana State Attorney General's Office has developed guidelines for use by state agency to assess the impact of a proposed agency action on private property. The assessment process includes a careful review of all issues identified in the Attorney General's guidance document (Montana Department of Justice 1997). If the use of the guidelines and checklist indicates that a proposed agency action has taking or damaging implications, the agency must prepare an impact assessment in accordance with Section 5 of the Private Property Assessment Act. For the purposes of this EA, the questions on the following checklist refer to the following required stipulation(s):

*Report ingress of any wild game animals or egress of domestic elk to the Montana FWP immediately. The report must contain the probable reason why or how ingress/egress occurred.*

*Monitor the game farm perimeter fence on a daily basis and immediately after major snow, rain, and wind events to ensure fence integrity is maintained, especially from tree fall. Monitoring frequency can be reduced to biweekly (every 2 weeks) during periods when domestic elk are not in the game farm enclosure.*

*Install an offset electrified fence outside the game farm perimeter fence. Research in this area has demonstrated that a three-wire array would be effective in preventing wildlife ingress and protecting the game farm fence from damage by bears or other wildlife attempting to gain access into the enclosure. The offset electrified fence also should prevent nose-to-nose contact between domestic elk in the enclosure and wildlife outside the fence. Configuration of the three-wire array would be as follows relative to height above ground surface: first hot wire at 6 inches; second hot wire at 24 inches; and third hot wire at 48 inches (the game farm fence would provide the ground for hot wires). The hot wires should be offset from the game farm fence by a distance of at least 30 inches and less than 36 inches, and the charger should have a voltage output of at least 7,000 volts with a stored energy rating of 1.0 Joules or greater. Operation of the electrified wire must be verified daily when domestic elk are present in the game farm.*

*Remove elk gut piles from the game farm site within 24 hours of each elk shooting to minimize attracting wildlife.*

*Shooting in the game farm enclosure using high-powered rifles must not occur in the direction of residences that are located northeast of the game farm; this restriction is limited to the northern third of the game farm area due to limited protection by topographic ridges. A guide must accompany each harvester to be sure that shooting does not occur toward the residences described above. Signs shall be placed on the outside upper portion of the game farm perimeter fence spaced 100 feet apart that warn of shooting activities inside the fence area.*

*Shooting of domestic elk in the game farm using high-powered rifles is limited to the period of September through December.*





## PRIVATE PROPERTY ASSESSMENT ACT CHECKLIST

### DOES THE PROPOSED AGENCY ACTION HAVE TAKINGS IMPLICATIONS UNDER THE PRIVATE PROPERTY ASSESSMENT ACT?

YES	NO	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2. Does the action result in either a permanent or indefinite physical occupation of private property?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3. Does the action deprive the owner of all economically viable uses of the property?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4. Does the action deny a fundamental attribute of ownership?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If the answer is <b>NO</b> , skip questions 5a and 5b and continue with question 6.]
<input type="checkbox"/>	<input type="checkbox"/>	5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?
<input type="checkbox"/>	<input type="checkbox"/>	5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	6. Does the action have a severe impact on the value of the property?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally? [If the answer is <b>NO</b> , do not answer questions 7a-7c.]
<input type="checkbox"/>	<input type="checkbox"/>	7a. Is the impact of government action direct, peculiar, and significant?
<input type="checkbox"/>	<input type="checkbox"/>	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged, or flooded?
<input type="checkbox"/>	<input type="checkbox"/>	7c. Has government action diminished property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?

Taking or damaging implications exist if **YES** is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if **NO** is checked in response to questions 5a or 5b.

If taking or damaging implications exist, the agency must comply with § 5 of the Private Property Assessment Act, to include the preparation of a taking or damaging impact assessment. Normally, the preparation of an impact assessment will require consultation with agency legal staff.

